Massachusetts Agriculture 1982

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Governor

John A. Bewick,
Secretary of Environmental Affairs

Frederic Winthrop, Jr.,
Commissioner Food and Agriculture

Dairy and vegetable farmer Stephen Verrill speaks at his farm in Concord during ceremonies to award direct marketing grants and citations for participation in state Agricultural Preservation Restriction Program. Officiating at the April 17 event were Frederic Winthrop, Jr. (left), Commissioner of the Massachusetts Department of Food and Agriculture, and U.S. Secretary of Agriculture John R. Block (seated right).

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The Commonwealth of Massachusetts

Department of Food and Agriculture

Leverett Saltonstall Building, Government Center

100 Cambridge Street, Boston 02202

Dear friends of Massachusetts agriculture:

A look back at year's end provides insight for the future.

Combined in this publication are a review of the activities of this Department during fiscal year 1982, and also a statistical summary of farm production in Massachusetts for the 1981 crop year.

Cash receipts from farm marketings rose from $296,864,000 in 1980 to a high of $321,540,000. Receipts were up or held steady in 18 of the 25 major farm categories. Dramatic increases were noted in cranberry, dairy and maple production, though the adverse impact of inflation has not been factored into these statistics.

Crop production for 1982 will surely be affected by the severe rains and flooding that inundated the state during June. A bright note will most likely be cranberry production, as all indications are that we will see the largest crop ever in Massachusetts, which is again this year the leading cranberry producing state.

The development of new markets for our native agricultural products continued as a priority during the past year, as you will read in our Departmental annual report. You will note, too, that there has been significant progress in our efforts to protect farmland across the state. I hope that you will review the charts and statistics in the section in this Agricultural Preservation Restriction Program as well as the yearly reports from all of our various Divisions and offices. Their achievements are impressive.

As in past years, the statistical report in this publication was compiled by the New England Crop and Livestock Reporting service of the U.S. Department of Agriculture. We are grateful for their fine work and for all the contributions of the staff in the Massachusetts Department of Food and Agriculture.

Sincerely,

Frederic Winthrop, Jr.
Commissioner

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COVER PHOTO:

At bogs owned by Decas Cranberry Company in Carver, helicopter lifts a large crate containing 1000 pounds (10 barrels) of cranberries. This technique speeds up the harvest operation, dramatically reduces damage to cranberry vines, and saves on labor expenses. Also, it helps increase cranberry production! Waiting to assist in the innovative harvest procedure used on dry harvested bogs is John C. Decas (left). Photo by UPI photographer George Riley.

MASSACHUSETTS AGRICULTURAL STATISTICS

MASSACHUSETTS DEPARTMENT OF FOOD AND AGRICULTURE

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LIVESTOCK HIGHLIGHTS

CATTLE AND CALVES

The inventory of cattle and calves in Massachusetts on January 1, 1982 totaled 96,000 head, 8 percent less than January 1, 1981. This inventory consisted of 45,000 milk cows; 10,000 beef cows; 17,000 heifer replacements; 6,000 steers and bulls and 18,000 calves. The current trend is for more beef cows and fewer milk cows. The 1981 calf crop (calves born) of 45,000 head was unchanged from 1980. The inventory value on January 1, 1982 averaged a record high value of $800 per head, $15 more than the previous year. With the reduced inventory number, the value only totaled $76.8 million, 6 percent below the record total value set on January 1, 1981.

The 1981 production of cattle and calves totaled 46,000 head with a total live weight of 24.0 million pounds, 1.4 million pounds less than 1980 production. Marketings in 1981 numbered 46,000 head of cattle and calves at a total live weight of 25.6 million pounds, up 2.3 million pounds from 1980.

SHEEP AND LAMBS

Sheep and lamb inventory in Massachusetts on January 1, 1982 totaled 8,000 head, 11 percent above January 1, 1981 and the largest number since January 1, 1971. Sheep and lamb inventory numbers have been increasing since 1979. Inventory value for the January 1, 1982 flock was a record high $872,000, up 38 percent from January 1, 1981, due to increases in both inventory numbers and value per head. The January 1, 1982 value per head was a record high $109, up from the $88 value per head on January 1, 1981. The lamb crop in 1981 totaled 6,800 head, up 21 percent from the lamb crop in 1980 and the largest lamb crop since 1969.

The 1981 production of sheep and lambs numbered 4,800 head with a total live weight of 423,000 pounds, down 1 percent from the total live weight produced in 1980. Gross income from the 1981 sheep and lamb production was a record high $286,000, up from the 1980 gross income of $268,000. Sheep and lamb marketings numbered 4,000 head at a total live weight of 207,000 pounds, down 31 percent from the live weight in 1980 and the lowest since 1944.

WOOL

Wool production of 49,000 pounds in 1981 was up 2,000 pounds from the 1980 total and the largest production since 1974. There were 7,000 head of sheep shorn in 1981, 200 above the 1980 total and the largest number shorn since 1972. Weight per fleece averaged 7.0 pounds in 1981, up from the 6.9 pounds per fleece in 1980. The value of wool production in 1981 was $44,000 or $3,000 more than in 1980 and the largest since 1957. Farmers received a record 90¢ per pound for wool in 1981, up 2¢ per pound from the 88¢ per pound in 1980.

HOGS AND PIGS

The inventory of hogs and pigs in Massachusetts on December 1, 1981 totaled 49,000 head, unchanged from the record low set in 1980. The inventory included 12 percent breeding animals and 88 percent animals intended for market. The value of the December 1, 1981 inventory totaled $3.9 million, 7 percent more than on December 1, 1980, but 15 percent below the record high 1978 inventory value. The average value per head was a record high $79.50 on December 1, 1981, up from the $74.50 on December 1, 1980.

The pig crop for 1981 (December 1980-November 1981) of 58,000 head was down 11 percent from the 65,000 in 1980. Sows farrowing for the year totaled 9,000 head, 1,000 below the number that farrowed in 1980. The litter size in 1981 averaged 6.4 pigs, below the 6.5 pigs per litter in 1980. The spring (December-May) pig crop for 1981 totaled 26,000 head, down 13 percent from the 1980 spring crop. The 1981 fall (June-November) pig crop totaled 32,000, down 9 percent from the 1980 fall crop.

The 1981 hog production of 56,000 head, with a record low total live weight of 13.3 million pounds, was down 19 percent from the total live weight production in 1980. The gross income from hog production in 1981 was $5.8 million, down 11 percent from the $6.5 million in 1980. Farmers marketings in 1981 of 55,000 head, with a total live weight of 12.8 million pounds, were 21 percent fewer pounds than in 1980 and the lowest since 1926.

HONEY PRODUCTION

Apiarists in Massachusetts kept 11,000 bee colonies in 1981, 1,000 colonies less than in 1980. Although weather conditions were favorable in 1981 for honey production, many colonies were damaged from spraying for the gypsy moths which held production to 253,000 pounds, down from the 288,000 pounds in 1980. Yield per colony in 1981 was 23 pounds compared to 24 pounds in 1980. The 1981 value of production was $279,000, less than the $294,000 in 1980. Apiarists in 1981 received a record high average price of $1.04 per pound, up from the $1.02 per pound received in 1980.

CATTLE: NUMBER AND VALUE OF ALL CATTLE AND CALVES ON FARMS JANUARY 1, MASSACHUSETTS, 1971-1982

YEAR	NUMBER	VALUE	
		PER HEAD	TOTAL
	1,000 Head	Dollars	1,000 Dollars
1971	111	270	29,970
1972	110	290	31,900
1973	111	335	37,185
1974	105	420	44,100
1975	107	315	33,705
1976	107	345	36,915
1977	104	380	39,520
1978	99	415	41,085
1979	102	560	57,120
1980	104	685	71,240
1981	104	785	81,640
1982	96	800	76,800

CATTLE: JANUARY 1, INVENTORY BY CLASSES, MASSACHUSETTS, 1971-1982

YEAR	ALL CATTLE AND CALVES	COWS & HEIFERS THAT HAVE CALVED		HEIFERS 500 LBS. & OVER			STEERS 500 LBS. +	BULLS 500 LBS. +	STEERS, HEIFERS & BULLS -500 LBS.
		BEEF	MILK	BEEF COW REPLACEMENTS	MILK COW REPLACEMENTS	OTHER REPLACEMENTS			
					1,000 Head				
1971	111	7	60	2	15	2	2	2	21
1972	110	8	58	2	15	2	2	2	21
1973	111	8	57	2	16	2	2	2	22
1974	105	8	54	2	15	2	2	2	20
1975	107	9	54	2	17	1	3	2	19
1976	107	9	55	2	17	1	3	2	18
1977	104	9	53	2	17	1	2	2	18
1978	99	8	51	2	16	1	2	2	17
1979	102	10	49	3	16	1	2	2	19
1980	104	10	45	3	16	1	3	2	24
1981	104	10	45	4	14	1	4	2	24
1982	96	10	45	3	13	1	4	2	18

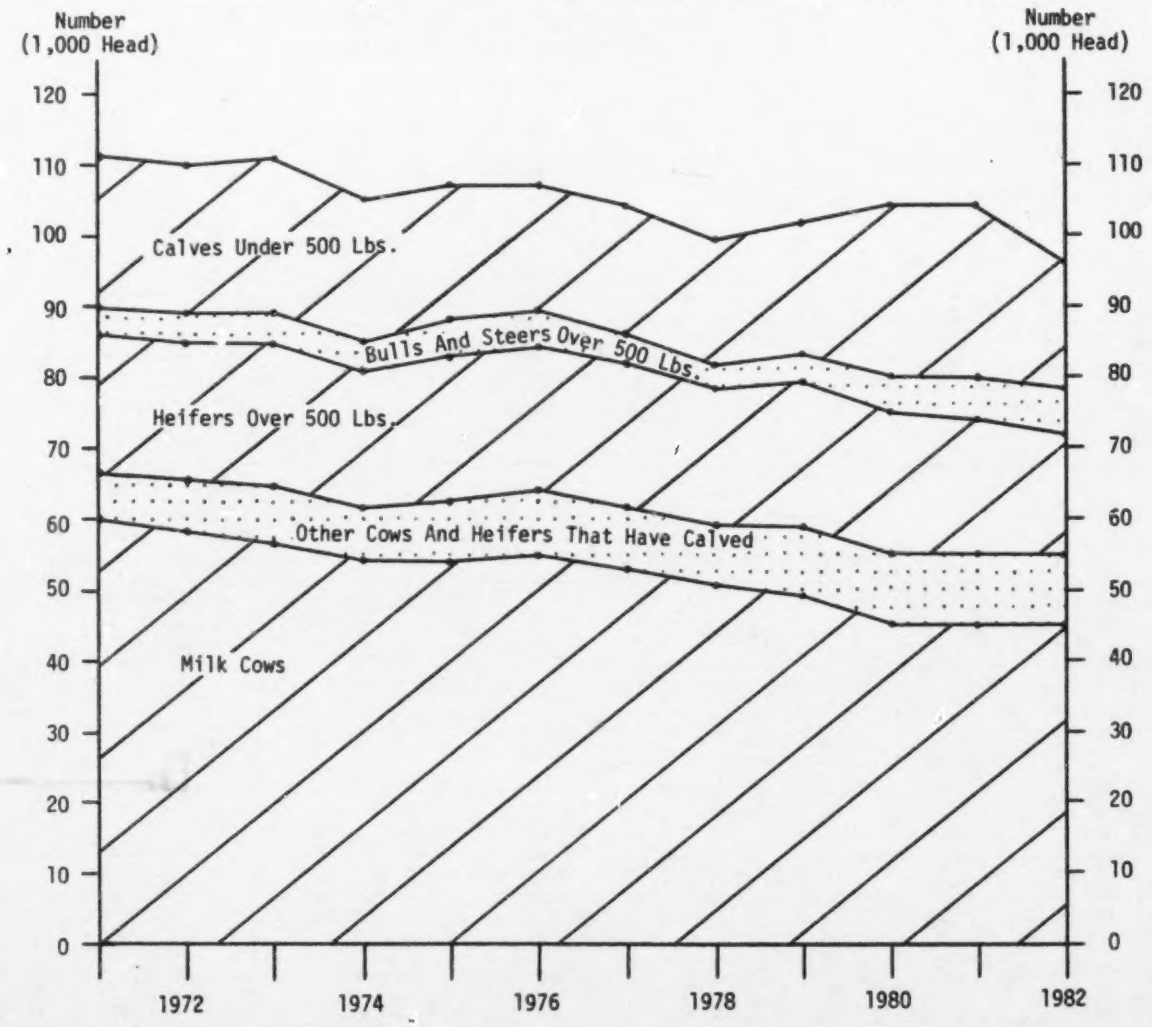
CATTLE AND CALVES: PRODUCTION AND INCOME, MASSACHUSETTS, 1971-1981

YEAR	PRODUCTION	MARKETINGS	PRICE PER 100 POUNDS		VALUE OF HOME CONSUMPTION	GROSS INCOME
			CATTLE	CALVES		
	1,000 Pounds		Dollars		1,000 Dollars	
1971	23,175	32,495	21.10	28.00	363	7,443
1972	24,660	32,020	24.20	34.00	416	8,441
1973	28,875	40,115	33.50	44.00	576	14,293
1974	30,405	32,845	27.50	28.00	473	9,516
1975	35,060	27,812	22.40	24.20	925	7,217
1976	33,620	40,230	26.00	28.50	559	11,071
1977	33,240	40,790	26.20	38.20	676	11,591
1978	27,080	26,560	41.90	57.00	1,441	12,846
1979	21,340	21,754	57.00	76.00	1,520	14,248
1980	25,430	23,300	55.00	71.00	1,656	14,673
1981	24,040	25,570	50.00	63.00	1,290	14,390

CATTLE AND CALVES: INVENTORY, SUPPLY, AND DISPOSITION, MASSACHUSETTS, 1971-1981

YEAR	ALL CATTLE ON HAND JAN. 1	CALF CROP	INSHIPMENTS	MARKETINGS		FARM SLAUGHTER	DEATHS	
				CATTLE	CALVES	CATTLE AND CALVES	CATTLE	CALVES
				1,000 Head				
1971	111	60	12	29	37	1	2	4
1972	110	60	11	29	33	1	2	5
1973	111	57	10	33	30	1	3	6
1974	105	55	8	27	26	1	2	5
1975	107	56	7	32	22	1	2	6
1976	107	55	7	34	22	1	2	6
1977	104	52	7	35	20	1	2	6
1978	99	50	5	23	19	2	2	6
1979	102	47	1	19	18	1	2	6
1980	104	45	1	21	14	1	3	7
1981	104	45	1	24	22	1	2	5

MASSACHUSETTS CATTLE INVENTORY NUMBERS



HOGS: NUMBER AND VALUE ON FARMS DECEMBER 1, MASSACHUSETTS, 1970-1981

YEAR	NUMBER			VALUE	
	BREEDING	MARKET	TOTAL	PER HEAD	TOTAL
		1,000 Head		Dollars	1,000 Dollars
1970	11	62	73	28.50	2,081
1971	9	64	73	32.00	2,336
1972	9	54	63	37.50	2,363
1973	10	50	60	62.50	3,750
1974	8	43	51	48.00	2,448
1975	8	42	50	64.50	3,225
1976	7	43	50	50.50	2,525
1977	8	52	60	59.50	3,570
1978	8	52	60	76.50	4,590
1979	9	51	60	55.50	3,330
1980	7	42	49	74.50	3,651
1981	6	43	49	79.50	3,896

HOGS: PIG CROP, SOWS FARROWED AND PIGS SAVED, MASSACHUSETTS, 1971-1981

YEAR	SPRING CROP (DEC - MAY)			FALL CROP (JUN - NOV)			TOTAL PIG CROP
	SOWS	PIGS PER LITTER	PIGS SAVED	SOWS	PIGS PER LITTER	PIGS SAVED	
	1,000 Head	Head	1,000 Head	1,000 Head	Head	1,000 Head	1,000 Head
1971	7.6	6.7	51	7.4	6.3	47	98
1972	7.0	6.3	44	7.0	6.2	43	87
1973	7.0	6.0	42	7.1	6.0	43	85
1974	7.0	6.0	42	6.8	6.0	41	83
1975	7.0	6.2	43	6.8	5.7	39	82
1976	6.6	6.8	45	5.7	6.5	37	82
1977	5.0	6.9	35	6.5	6.6	43	78
1978	5.0	7.2	36	6.0	6.8	41	77
1979	6.0	6.5	39	6.5	6.5	42	81
1980	4.0	7.4	30	6.0	5.8	35	65
1981	4.0	6.6	26	5.0	6.4	32	58

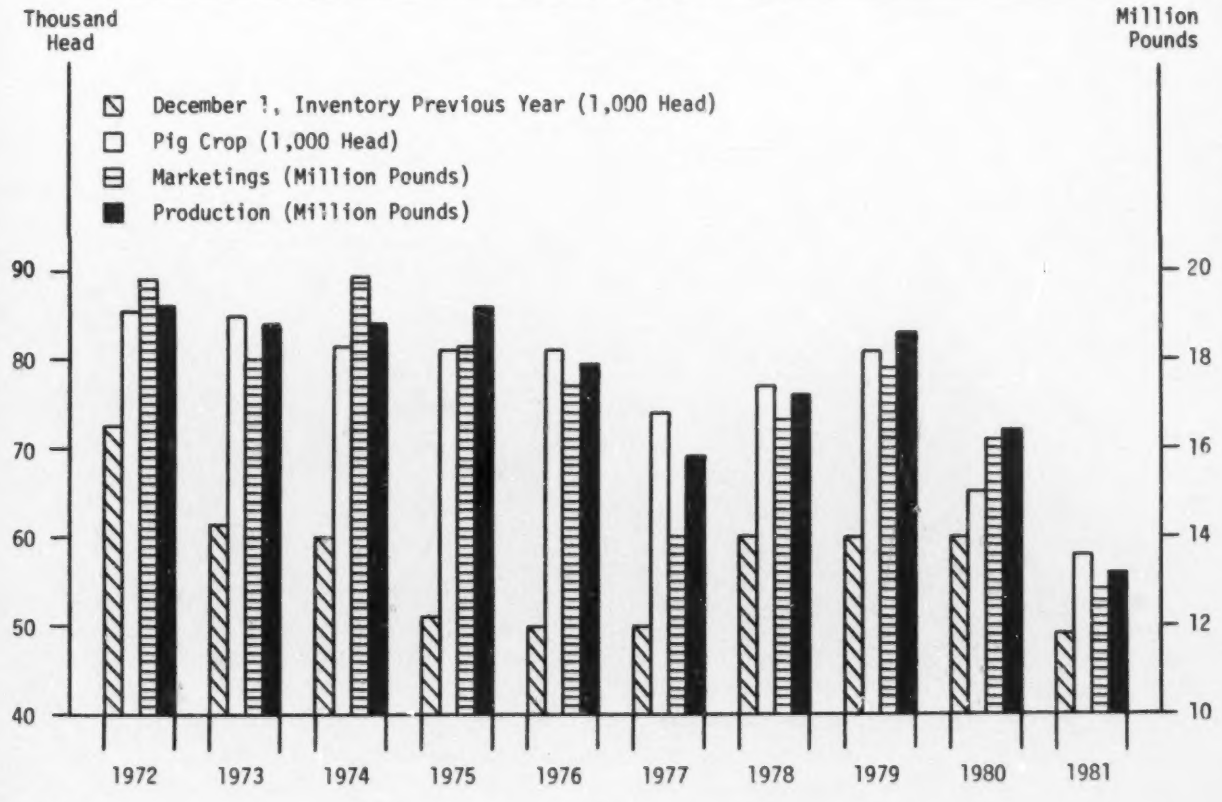
HOGS: INVENTORY NUMBER, PIG CROP AND DISPOSITION, MASSACHUSETTS, 1971-1981

YEAR	ON HAND DECEMBER 1st PREVIOUS YEAR	PIG CROP		MARKETINGS	FARM SLAUGHTER	DEATHS
		DEC - MAY	JUN - NOV			
			1,000 Head			
1971	73	51	47	88	1	9
1972	73	44	43	89	1	7
1973	63	42	43	80	1	7
1974	60	42	41	86	1	5
1975	51	43	39	78	1	4
1976	50	45	37	75	1	6
1977	50	35	43	61	1	6
1978	60	36	41	71	1	5
1979	60	39	42	76	1	4
1980	60	30	35	71	2	3
1981	49	26	32	55	1	2

HOGS: PRODUCTION AND INCOME, MASSACHUSETTS, 1971-1981

YEAR	PRODUCTION	MARKETINGS	PRICE PER 100 POUNDS	VALUE OF HOME CONSUMPTION	GROSS INCOME
	1,000 Pounds		Dollars	1,000 Dollars	
1971	19,746	19,556	17.50	77	3,499
1972	19,191	19,835	25.00	110	5,069
1973	18,862	18,068	37.00	171	6,856
1974	18,764	19,910	33.00	254	6,824
1975	19,100	18,260	45.00	347	8,564
1976	17,891	17,378	45.00	354	8,174
1977	15,832	14,063	37.00	291	5,494
1978	17,211	16,640	45.00	304	7,792
1979	18,640	17,820	44.00	297	8,138
1980	16,412	16,185	37.00	500	6,488
1981	13,267	12,825	43.00	290	5,805

TREND IN DECEMBER 1 INVENTORY, PIG CROP, MARKETINGS AND PRODUCTION, MASSACHUSETTS, 1972-1981



SHEEP AND LAMBS: INVENTORY NUMBER BY CLASS AND VALUE, JANUARY 1, MASSACHUSETTS, 1971-1982

YEAR	LAMBS			ONE YEAR AND OVER		ALL SHEEP AND LAMBS	VALUE	
	ALL LAMBS	EWES	WETHERS AND RAMS	EWES	WETHERS AND RAMS		PER HEAD	TOTAL
	1,000 Head			1,000 Head		1,000 Head	Dollars	1,000 Dollars
1971	1.7	1.4	.3	5.9	.6	8.2	20.00	164
1972	1.4	1.0	.4	5.8	.6	7.8	20.00	156
1973	1.4	1.0	.4	5.5	.6	7.5	28.00	210
1974	1.4	1.0	.4	5.0	.5	6.9	40.00	276
1975	1.5	1.1	.4	5.1	.4	7.0	46.50	326
1976	1.5	1.1	.4	5.3	.4	7.2	46.00	331
1977	1.4	1.0	.4	4.9	.4	6.7	48.00	322
1978	1.6	1.1	.5	4.7	.5	6.8	53.50	364
1979	1.3	1.0	.3	4.9	.5	6.7	63.00	422
1980	1.6	1.2	.4	5.0	.5	7.1	78.50	557
1981	1.6	1.2	.4	5.1	.5	7.2	88.00	634
1982	1.9	1.4	.5	5.6	.5	8.0	109.00	872

SHEEP AND LAMBS: INVENTORY NUMBERS, LAMB CROP AND DISPOSITION, MASSACHUSETTS, 1971-1981

YEAR	ALL SHEEP AND LAMBS ON HAND JANUARY 1	LAMB CROP	MARKETINGS		FARM SLAUGHTER SHEEP AND LAMBS	DEATHS SHEEP AND LAMBS
			SHEEP	LAMBS		
	1,000 Head					
1971	8.2	6.2	1.4	3.8	0.3	1.1
1972	7.8	5.6	1.5	3.1	0.2	1.1
1973	7.5	5.3	1.5	2.9	0.4	1.1
1974	6.9	5.2	1.2	2.6	0.2	1.1
1975	7.0	5.5	0.9	2.9	0.4	1.1
1976	7.2	5.6	1.5	3.3	0.3	1.0
1977	6.7	5.7	1.1	3.1	0.4	1.0
1978	6.8	5.3	1.0	2.9	0.5	1.0
1979	6.7	5.1	0.8	2.5	0.5	0.9
1980	7.1	5.6	1.2	2.7	0.6	1.0
1981	7.2	6.8	0.7	3.3	0.8	1.2

SHEEP AND LAMBS: PRODUCTION AND INCOME, MASSACHUSETTS, 1971-1981

YEAR	PRODUCTION	MARKETINGS	PRICE PER 100 POUNDS		VALUE OF HOME CONSUMPTION	GROSS INCOME
			SHEEP	LAMBS		
	1,000 Pounds		Dollars		1,000 Dollars	
1971	440	443	10.00	25.50	9	100
1972	382	397	12.00	32.50	7	105
1973	366	395	14.00	41.00	21	133
1974	349	318	17.00	37.00	10	101
1975	372	296	26.00	68.00	35	193
1976	382	393	28.00	72.00	35	244
1977	431	357	29.00	72.00	46	244
1978	406	329	38.00	84.00	67	282
1979	382	246	39.00	85.00	82	245
1980	428	300	42.00	77.00	89	268
1981	423	207	45.00	100.00	127	286

WOOL: FARM PRODUCTION, PRICE AND VALUE, MASSACHUSETTS, 1971-1981

YEAR	SHEEP SHORN	WEIGHT PER FLEECE	SHORN WOOL PRODUCTION	PRICE PER POUND	VALUE
	1,000 Head	Pounds	1,000 Pounds	Cents	1,000 Dollars
1971	7.7	6.9	53	31	16
1972	7.2	7.2	52	34	18
1973	6.9	7.2	50	71	36
1974	6.6	7.4	49	62	30
1975	6.4	7.2	46	31	14
1976	6.7	6.9	46	60	28
1977	6.2	7.1	44	78	34
1978	6.3	6.8	43	74	32
1979	6.6	6.8	45	84	38
1980	6.8	6.9	47	88	41
1981	7.0	7.0	49	90	44

BEES, HONEY AND BEESWAX: COLONIES OF BEES, PRODUCTION, PRICE PER POUND AND VALUE OF PRODUCTION, MASSACHUSETTS, 1971-1981

YEAR	COLONIES OF BEES	HONEY				BEESWAX		
		YIELD PER COLONY	PRODUCTION	PRICE PER POUND	VALUE OF PRODUCTION	PRODUCTION	PRICE PER POUND	VALUE OF PRODUCTION
	1,000	Pounds	1,000 Pounds	Cents	1,000 Dollars	1,000 Pounds	Dollars	1,000 Dollars
1971	9	25	225	42.2	95	5	.80	4
1972	9	19	171	50.0	86	3	.75	2
1973	9	26	234	66.8	156	4	.90	4
1974	12	16	192	81.2	156	4	1.10	4
1975	12	27	324	96.9	314	8	1.10	9
1976	12	19	228	101.0	230	4	1.10	4
1977	12	22	264	103.0	272	5	1.50	8
1978	12	35	420	103.0	433	6	1.60	10
1979	12	33	396	83.1	329	6	1.60	10
1980	12	24	288	102.0	294	6	1.85	11
1981	11	23	253	104.0	279	4	1.93	8

DAIRY HIGHLIGHTS

MILK PRODUCTION

Milk production from Massachusetts farms totaled 578 million pounds in 1981, 1 percent more than in 1980, and the largest production since 1977. The average number of milk cows in Massachusetts during 1981 was 46,000 head, unchanged from the 1980 record low. The number of milk cows have generally been on a decline since 1944. The 1981 rate per cow of 12,565 pounds continues the long term upward trend with an increase of 174 pounds above the 1980 average.

MILK DISPOSITION AND BLEND PRICE

Dairymen in the Commonwealth marketed 569 million pounds in 1981, an increase of 9 million pounds from the 1980 total and the largest amount since 1977. The average price received for milk marketed in 1981 averaged $15.11 per cwt., 87¢ greater than the 1980 average, and continuing the upward trend. With both an increase in the amount marketed and average price, the 1981 cash receipts rose 8 percent above 1980 and totaled almost $86 million.

MANUFACTURED DAIRY

Massachusetts ice cream production during 1981 totaled 43 million gallons, 2 percent below 1980 but 2 percent above 1979. Although ice cream production was down in the Commonwealth, the production of cheese, ice milk and milk sherbet was all above the 1980 totals.

MANUFACTURED DAIRY: PRODUCTION MAJOR PRODUCTS, MASSACHUSETTS, 1971-1981

YEAR	TOTAL CHEESE	ICE CREAM	ICE MILK	MILK SHERBET
	1,000 Pounds		1,000 Gallons	
1971	7,268	40,455	7,514	2,556
1972	6,416	41,025	8,802	2,393
1973	5,976	42,302	7,742	2,330
1974	5,412	43,607	9,611	2,186
1975	5,288	47,761	9,177	1,985
1976	6,123	46,320	7,246	2,116
1977	5,786	45,255	7,483	2,180
1978	7,780	42,909	9,779	2,102
1979	6,255	42,463	10,454	1,829
1980	5,099	43,986	9,817	1,992
1981	8,559	43,193	10,173	2,089

MILK COWS: AVERAGE NUMBER ON FARMS, BY QUARTERS AND ANNUAL, MASSACHUSETTS, 1971 - 1981

YEAR	JAN - MAR	APR - JUN	JUL - SEPT	OCT - DEC	ANNUAL
			1,000 Head		
1971	60	59	58	58	59
1972	57	57	57	57	57
1973	56	55	54	54	55
1974	54	54	54	54	54
1975	55	54	54	55	55
1976	55	54	53	53	54
1977	52	51	51	51	51
1978	50	48	48	49	49
1979	49	48	47	46	48
1980	46	46	46	46	46
1981	45	45	46	46	46

MILK PRODUCTION: AVERAGE PER COW, BY QUARTERS AND ANNUAL, MASSACHUSETTS, 1971 - 1981

YEAR	JAN - MAR	APR - JUN	JUL - SEPT	OCT - DEC	ANNUAL
			Pounds		
1971	2,700	2,950	2,810	2,740	11,150
1972	2,795	2,965	2,650	2,580	11,035
1973	2,715	2,930	2,610	2,610	10,818
1974	2,705	2,945	2,720	2,610	10,981
1975	2,725	2,960	2,720	2,620	10,927
1976	2,735	2,950	2,760	2,700	11,074
1977	2,850	3,060	2,890	2,870	11,706
1978	2,900	3,110	2,920	2,820	11,673
1979	2,920	3,090	2,940	2,980	11,792
1980	3,110	3,240	3,000	3,050	12,391
1981	3,180	3,350	3,090	3,080	12,565

MILK PRODUCTION, BY QUARTERS AND ANNUAL, MASSACHUSETTS, 1971 - 1981

YEAR	JAN - MAR	APP - JUN	JUL - SEPT	OCT - DEC	ANNUAL
			Million Pounds		
1971	162	174	163	159	658
1972	162	169	151	147	629
1973	152	161	141	141	595
1974	146	159	147	141	593
1975	150	160	147	144	601
1976	150	159	146	143	598
1977	148	156	147	146	597
1978	145	149	140	138	572
1979	143	148	138	137	566
1980	143	149	138	140	570
1981	143	151	142	142	578

MILK: QUANTITY MARKETED, PRICE AND CASH RECEIPTS, MASSACHUSETTS, 1971 - 1981

YEAR	SOLD TO PLANTS			SOLD DIRECTLY TO CONSUMERS			COMBINED MARKETINGS		
	QUANTITY	PRICE PER CWT.	CASH RECEIPTS	QUANTITY	PRICE PER QUART	CASH RECEIPTS	QUANTITY	PRICE PER CWT.	CASH RECEIPTS
	Million Pounds	Dollars	1,000 Dollars	Million Quarts	Cents	1,000 Dollars	Million Pounds	Dollars	1,000 Dollars
1971	600	6.96	41,760	20.9	31	6,488	645	7.48	48,248
1972	580	7.23	41,934	17.2	32	5,507	617	7.69	47,441
1973	550	8.22	45,210	15.3	35	5,372	583	8.68	50,582
1974	550	9.50	52,250	14.4	40	5,768	581	9.99	58,018
1975	555	9.65	53,588	15.8	40	6,326	589	10.17	59,884
1976	550	10.70	58,850	16.7	42	7,032	586	11.24	65,882
1977	550	10.70	58,850	16.7	42	7,032	586	11.24	65,882
1978	530	11.50	60,950	14.9	43	6,400	562	11.98	67,350
1979	525	12.80	67,200	14.4	46	6,633	556	13.28	73,833
1980	530	13.70	72,610	14.0	51	7,116	560	14.24	79,726
1981	540	14.60	78,840	13.5	53	7,149	569	15.11	85,989

MILK: QUANTITIES USED AND MARKETED BY FARMERS, MASSACHUSETTS, 1971 - 1981

YEAR	TOTAL PRODUCED	MILK, USED ON FARMS WHERE PRODUCED			MILK MARKETED BY FARMERS		
		USED FOR MILK, CREAM AND BUTTER	FED TO CALVES	TOTAL	SOLD TO PLANTS AND DEALERS	SOLD DIRECTLY TO CONSUMERS	TOTAL
	Million Pounds						
1971	658	8	5	13	600	45	645
1972	629	7	5	12	580	37	617
1973	595	7	5	12	550	33	583
1974	593	7	5	12	550	31	581
1975	601	7	5	12	555	34	589
1976	598	7	5	12	550	36	586
1977	597	6	5	11	550	36	586
1978	572	5	5	10	530	32	562
1979	566	4	6	10	525	31	556
1980	570	4	6	10	530	30	560
1981	578	4	5	9	540	29	569

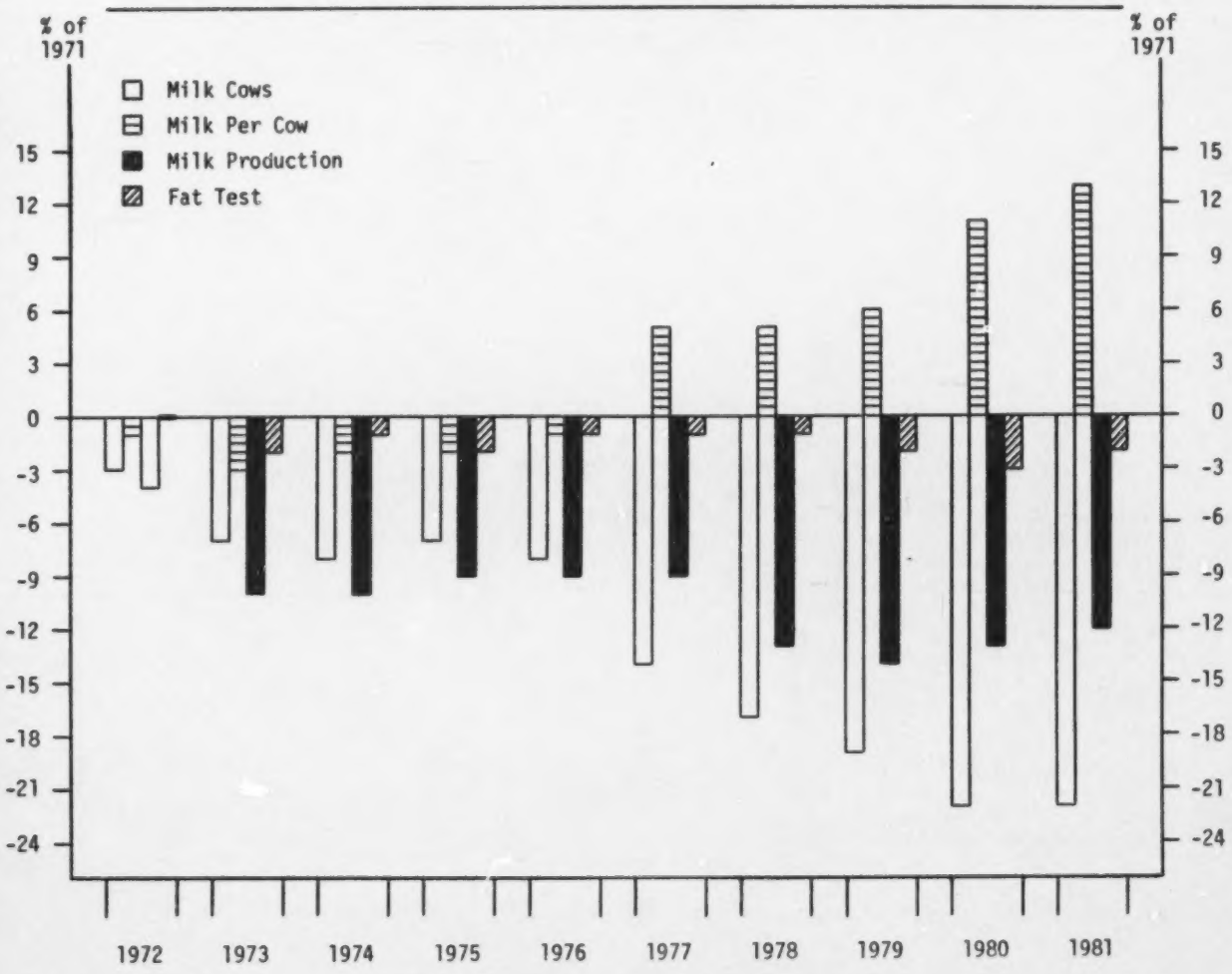
MILK: SOLD TO PLANTS, MONTHLY AND ANNUAL AVERAGE PRICE PER 100 POUNDS RECEIVED BY FARMERS, MASSACHUSETTS, 1971 - 1981

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL AVERAGE
	Dollars												
1971	7.05	7.05	6.90	6.65	6.45	6.30	6.75	7.05	7.30	7.40	7.45	7.30	6.96
1972	7.20	7.25	7.00	6.70	6.65	6.50	6.95	7.45	7.80	7.95	7.95	7.65	7.23
1973	7.70	7.75	7.55	7.30	7.20	7.20	7.75	8.55	9.25	9.55	9.80	9.70	8.22
1974	9.80	9.90	9.85	9.90	9.25	8.50	8.90	9.40	9.70	9.80	10.00	9.45	9.50
1975	9.55	9.50	9.15	8.95	8.50	8.35	9.05	9.65	10.30	10.80	11.10	11.20	9.65
1976	11.10	10.80	10.70	10.00	9.90	9.75	10.40	11.00	11.30	11.50	11.20	10.70	10.70
1977	10.60	10.50	10.20	10.20	9.90	10.00	10.50	10.90	11.20	11.40	11.40	11.20	10.70
1978	11.10	11.20	11.00	10.70	10.70	10.60	11.00	11.60	12.10	12.70	12.90	12.70	11.50
1979	12.70	12.80	12.50	12.20	12.00	12.00	12.50	13.10	13.40	13.80	13.90	13.40	12.80
1980	13.60	13.40	13.30	13.00	13.00	12.80	13.30	13.70	14.20	14.70	14.80	14.70	13.70
1981	14.90	14.70	14.50	14.30	14.00	13.80	14.30	14.60	14.90	15.20	15.00	14.80	14.60

MILK: FARM PRODUCTION AND VALUE OF MILK AND MILK PRODUCTS SOLD, MASSACHUSETTS, 1971-1981

YEAR	NUMBER OF MILK COWS ON FARMS	PRODUCTION					FARM VALUE OF MILK PRODUCED
		PER MILK COW		PERCENTAGE OF FAT IN ALL MILK PRODUCED	TOTAL		
		MILK	MILKFAT		MILK	MILKFAT	
	Thousands	Pounds		Percent	Million Pounds		1,000 Dollars
1971	59	11,153	414	3.71	658	24	49,218
1972	57	11,035	409	3.71	629	23	48,370
1973	55	10,818	395	3.65	595	22	51,646
1974	54	10,981	402	3.66	593	22	59,241
1975	55	10,927	397	3.63	601	22	61,122
1976	54	11,074	405	3.66	598	22	67,215
1977	51	11,706	431	3.68	597	22	67,103
1978	49	11,673	428	3.67	572	21	68,526
1979	48	11,792	429	3.64	566	21	75,165
1980	46	12,391	447	3.61	570	21	81,168
1981	46	12,565	456	3.63	578	21	87,336

TREND IN MILK COWS, PRODUCTION AND FAT TEST, MASSACHUSETTS, 1972-1981



POULTRY HIGHLIGHTS

CHICKENS

The December 1, 1981 inventory of chickens on farms (excluding broilers) in Massachusetts totaled 1.6 million birds, 10 percent below a year ago, and 7 percent below the inventory on December 1, 1979. The inventory revealed that the number of hens of laying age on December 1, 1981 increased 1 percent, while the number of pullets of laying age was 23 percent below the 1980 total. Total value of all chickens on hand in the state on December 1 was $4.1 million, slightly lower than the year before. Poultrymen marketed 9.1 million pounds of poultry during 1981 at 9.0 cents per pound compared to 6.3 million pounds at 8.3 cents per pound the previous year.

EGGS

For the fourth consecutive year, egg production declined as 321 million eggs were produced, 2 percent lower than the previous year and the lowest since 1932. The average daily rate of lay per 100 birds was a record 67.4 eggs per day, surpassing the previous record of 67.0 set in 1979. A record 86.0 cents per dozen allowed egg producers to gross 23.0 million dollars, the largest amount since 1969.

TURKEYS

Massachusetts farmers during 1981 raised 145,000 turkeys, 19,000 more than the year before. The value of production increased to $2.3 million, due to the increased numbers as the price per pound was 1¢ lower than the 1980 average.

POULTRY: INVENTORY BY CLASS AND VALUE, MASSACHUSETTS, DECEMBER 1, 1970-1981

YEAR	CHICKENS, EXCLUDING BROILERS						VALUE PER HEAD	TOTAL VALUE
	HENS AND PULLETS OF LAYING AGE		PULLETS NOT OF LAYING AGE		OTHER	TOTAL		
	HENS	PULLETS	3 MONTHS AND OLDER	UNDER 3 MONTHS				
	1,000 Head						Dollars	1,000 Dollars
1970	884	1,415	228	271	54	2,852	1.90	5,419
1971	886	1,313	288	249	33	2,769	1.85	5,123
1972	729	1,069	228	221	32	2,279	1.40	3,191
1973	896	807	251	255	31	2,240	2.00	4,480
1974	772	939	224	271	31	2,237	2.10	4,698
1975	725	786	293	268	19	2,091	2.35	4,914
1976	593	782	239	241	15	1,870	2.40	4,488
1977	465	1,005	290	180	50	1,990	2.05	4,080
1978	550	620	196	174	40	1,580	2.05	3,239
1979	617	755	126	197	31	1,726	2.15	3,711
1980	644	811	108	209	18	1,790	2.30	4,117
1981	650	622	141	153	37	1,603	2.55	4,088

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POULTRY: AVERAGE NUMBER OF LAYERS BY MONTH AND ANNUAL, MASSACHUSETTS, 1971-1981

MONTH	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
						Thousands					
DECEMBER 1/	2,313	2,188	1,800	1,717	1,751	1,504	1,434	1,447	1,253	1,342	1,412
JANUARY	2,339	2,166	1,813	1,676	1,742	1,496	1,501	1,402	1,338	1,320	1,362
FEBRUARY	2,325	2,091	1,790	1,602	1,715	1,474	1,515	1,440	1,400	1,331	1,322
MARCH	2,298	2,026	1,740	1,565	1,743	1,429	1,509	1,500	1,480	1,339	1,326
APRIL	2,235	2,036	1,717	1,536	1,718	1,401	1,514	1,503	1,435	1,332	1,334
MAY	2,200	2,046	1,704	1,530	1,668	1,408	1,539	1,484	1,385	1,318	1,293
JUNE	2,227	2,005	1,674	1,533	1,637	1,428	1,519	1,392	1,395	1,300	1,220
JULY	2,271	1,974	1,668	1,550	1,662	1,415	1,521	1,340	1,421	1,309	1,195
AUGUST	2,314	1,944	1,680	1,591	1,679	1,400	1,515	1,388	1,416	1,355	1,211
SEPTEMBER	2,280	1,904	1,675	1,633	1,614	1,399	1,435	1,395	1,365	1,383	1,272
OCTOBER	2,256	1,894	1,687	1,676	1,566	1,406	1,401	1,383	1,373	1,387	1,368
NOVEMBER	2,233	1,841	1,700	1,705	1,537	1,398	1,440	1,280	1,384	1,420	1.329
ANNUAL	2,274	2,010	1,721	1,610	1,669	1,430	1,487	1,413	1,387	1,345	1,304

EGGS: DAILY RATE OF LAY BY MONTHS AND ANNUAL, MASSACHUSETTS, 1971-1981

MONTH	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
						Percent					
DECEMBER 1/	61.4	62.6	63.0	65.4	64.0	65.5	65.3	63.1	67.0	67.3	66.3
JANUARY	62.4	63.7	61.7	64.7	64.5	65.0	65.2	64.5	67.1	66.0	63.9
FEBRUARY	62.2	63.7	62.8	64.1	64.1	64.5	63.9	66.0	67.6	67.3	64.8
MARCH	61.5	63.9	62.7	64.2	64.6	65.8	64.4	65.0	67.9	67.5	68.1
APRIL	61.2	63.6	64.5	64.4	67.0	67.8	65.5	65.7	67.1	67.6	67.5
MAY	61.8	63.3	66.3	65.2	68.0	68.3	66.9	67.2	64.9	66.1	70.0
JUNE	62.6	64.8	63.8	65.4	67.5	67.3	69.3	67.9	64.7	66.7	71.0
JULY	62.3	64.9	60.7	65.0	66.3	66.0	66.0	67.4	66.4	66.5	67.5
AUGUST	61.5	63.7	61.0	63.6	66.0	64.0	63.4	66.2	66.7	61.9	69.3
SEPTEMBER	60.7	62.1	62.1	61.7	65.8	62.3	64.4	66.3	67.3	62.7	68.1
OCTOBER	60.7	61.6	61.8	62.0	65.8	63.5	65.1	66.8	67.0	67.5	66.0
NOVEMBER	61.4	63.9	63.2	63.5	66.3	65.3	64.7	66.8	67.9	68.1	67.7
ANNUAL	61.7	63.3	62.6	64.0	66.0	65.5	65.4	66.1	67.0	66.2	67.4

EGGS: TOTAL PRODUCTION BY MONTHS AND ANNUAL, MASSACHUSETTS, 1971-1981

MONTH	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
						Million					
DECEMBER 1/	44	42	35	35	35	31	29	28	26	28	29
JANUARY	45	43	35	34	35	30	30	28	28	27	27
FEBRUARY	41	39	31	29	31	28	27	27	27	26	24
MARCH	44	40	34	31	35	29	30	30	31	28	28
APRIL	41	39	33	30	35	28	30	30	29	27	27
MAY	42	40	35	31	35	30	32	31	28	27	28
JUNE	42	39	32	30	33	29	32	28	27	26	26
JULY	44	40	31	31	34	29	31	28	29	27	25
AUGUST	44	38	32	31	34	28	30	28	29	26	26
SEPTEMBER	42	35	31	30	32	26	28	28	28	26	26
OCTOBER	42	36	32	32	32	28	28	29	29	29	28
NOVEMBER	41	35	32	32	31	27	28	26	28	29	27
ANNUAL	512	466	393	376	402	343	355	341	339	326	321

1/ Previous year

CHICKENS: PRODUCTION, DISPOSITION AND GROSS INCOME, MASSACHUSETTS, 1971-1981

YEAR	NUMBER OF BIRDS			LIVEWEIGHT			PRICE PER POUND	GROSS INCOME
	PRODUCED	CONSUMED	SOLD	PRODUCED	CONSUMED	SOLD		
	1,000 Head			1,000 Pounds			Cents	1,000 Dollars
1971	1,630	13	1,700	8,895	61	9,350	8.5	800
1972	1,503	12	1,981	8,273	55	10,697	9.5	1,021
1973	1,673	12	1,700	8,676	55	9,010	15.4	1,396
1974	1,706	12	1,697	10,037	55	10,012	10.3	1,037
1975	1,371	11	1,506	7,111	51	7,982	10.3	827
1976	1,090	11	1,300	6,186	51	7,150	13.3	958
1977	1,331	11	1,200	7,475	51	6,600	11.3	752
1978	901	11	1,300	5,134	51	7,150	12.3	885
1979	1,057	11	900	5,835	51	4,950	13.2	660
1980	1,225	11	1,150	6,708	51	6,325	8.3	529
1981	1,474	11	1,650	8,266	51	9,075	9.0	822

EGGS: PRODUCTION, PRICE AND VALUE, MASSACHUSETTS, 1971-1981

YEAR	EGGS PRODUCED	EGGS SOLD	PRICE PER DOZEN	CASH INCOME FROM FARM SALES	GROSS INCOME
	Millions		Cents	1,000 Dollars	
1971	512	511	44.5	18,950	18,987
1972	466	465	42.9	16,624	16,660
1973	393	392	62.9	20,547	20,599
1974	376	375	64.5	20,156	20,210
1975	402	401	66.2	22,122	22,177
1976	343	342	72.1	20,549	20,609
1977	355	354	69.9	20,621	20,679
1978	341	340	66.2	18,757	18,812
1979	339	338	73.8	20,787	20,849
1980	326	325	74.5	20,177	20,239
1981	321	320	86.0	22,933	23,005

TURKEYS: PRODUCTION, PRICE AND VALUE, MASSACHUSETTS, 1971-1981

YEAR	TURKEYS RAISED		NUMBER PRODUCED	POUNDS PRODUCED	PRICE PER POUND	VALUE OF PRODUCTION
	HEAVY	LIGHT				
	1,000			1,000 Pounds	Cents	1,000 Dollars
1971	173	19	192	3,840	35.5	1,363
1972	141	29	170	3,383	36.0	1,218
1973	144	29	173	3,287	62.0	2,038
1974	139	33	172	3,268	57.0	1,863
1975	106	19	125	2,375	58.0	1,378
1976	122	21	143	2,860	58.0	1,659
1977	110	15	125	2,600	58.0	1,508
1978	128	18	146	2,993	68.0	2,035
1979	133	7	140	2,800	65.0	1,820
1980	126	0	126	2,470	78.0	1,927
1981	145	0	145	3,045	77.0	2,345

CROP HIGHLIGHTS

CORN SILAGE

Massachusetts farmers made a record high of 780,000 tons of corn silage in 1981, 15 percent more than in 1980. A yield of 20 tons per acre compared with 17 the preceding year was responsible for the increase. Value of the crop of nearly $20 million was 3 percent more than in 1980.

A dry spring allowed soil tillage earlier than normal. Frosts didn't occur until later than normal in the fall, so the crop matured well. Harvest difficulty was caused by fall rains.

HAY

Production of all hay in 1981 totaled 278,000 tons, 8 percent more than in 1980. Increased acreage and higher yield both contributed to the increase. Value of the 1981 crop at $22 million, was 14 percent more than the 1980 crop. Rains in early summer interfered with curing the first cutting, but helped growth of the second cutting. Alfalfa came through the winter well and yielded well.

POTATOES

Potato production in 1981 totaled 743,000 hundredweight, 1 percent less than the 1980 total. One hundred fewer acres were harvested in 1981 than in 1980, but yield was 225 hundredweight per acre, compared with 220 for 1980. Because of lower price, the value of the 1981 crop is expected to be $4.6 million, 17 percent less then the value of the 1980 crop.

TOBACCO

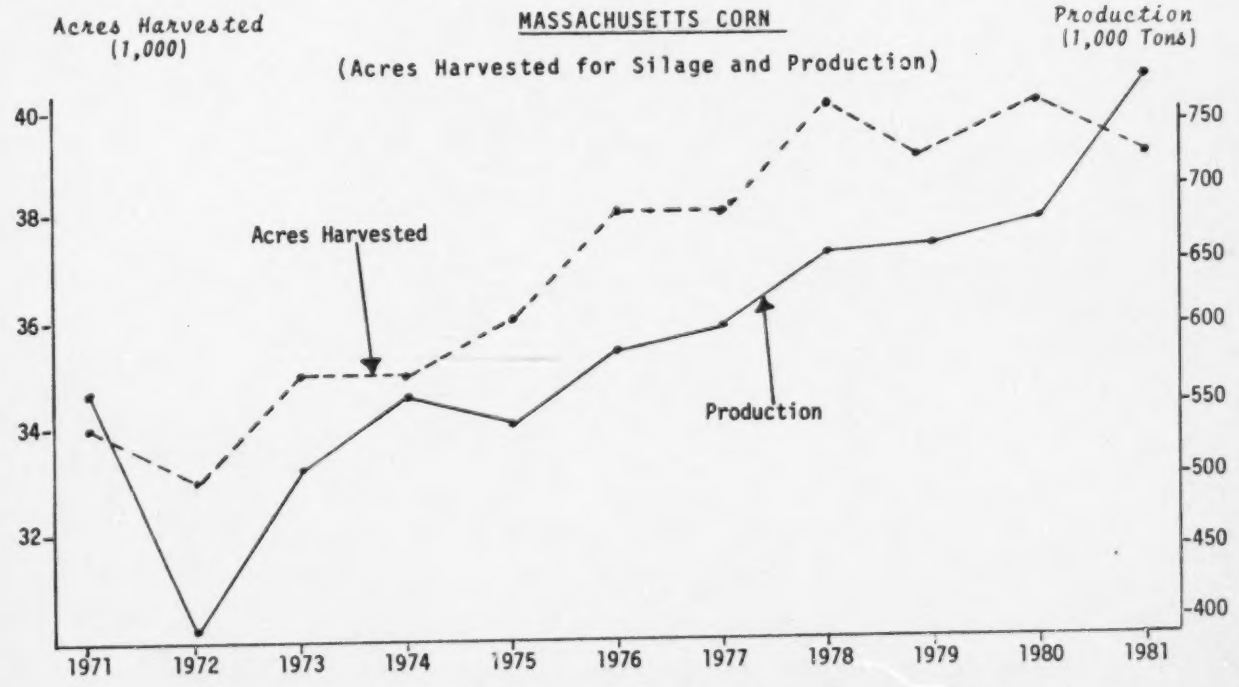
Production of all tobacco in 1981 totaled nearly two million pounds and had a value of $15.0 million, compared with 1980 production of 1.9 million pounds and a value of $14.2 million.

Shade tobacco production was 14,180,000 pounds in 1981, 4 percent more than the year before. Acreage, at 900, was down 40 acres from last year. Yield, at 1,500 pounds per acre, was 25 pounds higher than in the preceding year.

Havana Seed production, at 552,000 pounds in 1981, was 10 percent more than in 1980. Although acreage in 1981 of 240 was down slightly from the 1980 level, yield of 2,300 pounds per acre in 1981 compared with 2,000 the year before, more than compensated for the slight decline in acreage.

CORN: ACREAGE, YIELD, PRODUCTION AND VALUE, MASSACHUSETTS, 1971-1981

YEAR	AREA PLANTED FOR ALL PURPOSES	SILAGE			
		AREA HARVESTED	YIELD PER ACRE	TOTAL PRODUCTION	VALUE OF PRODUCTION
	1,000 Acres	1,000 Acres	Tons	1,000 Tons	1,000 Dollars
1971	36	34	16.5	561	6,732
1972	35	33	12.0	396	5,346
1973	37	35	14.5	508	7,366
1974	38	35	16.0	560	10,080
1975	39	36	15.0	540	11,475
1976	43	38	15.5	589	12,987
1977	44	38	16.0	608	13,923
1978	45	40	16.5	660	14,850
1979	44	39	17.0	663	16,575
1980	45	40	17.0	680	19,380
1981	46	39	20.0	780	19,968



ALL HAY: ACREAGE, YIELD, PRODUCTION, PRICE AND VALUE, MASSACHUSETTS, 1971-1981

YEAR	ACRES HARVESTED	YIELD PER ACRE	PRODUCTION	PRICE PER TON	VALUE PRODUCTION
	1,000	Tons	1,000 Tons	Dollars	1,000 Dollars
1971	112	2.15	241	41.00	9,881
1972	109	1.88	205	51.00	10,455
1973	112	2.25	252	50.00	12,600
1974	115	2.12	244	63.00	15,183
1975	118	2.18	257	79.00	19,355
1976	120	2.10	252	71.00	18,034
1977	120	1.99	239	69.00	16,077
1978	120	2.26	271	73.00	19,783
1979	119	2.39	285	72.00	20,520
1980	119	2.17	258	76.00	19,608
1981	121	2.30	278	80.50	22,379

ALFALFA HAY: ACREAGE, YIELD AND PRODUCTION, MASSACHUSETTS, 1971-1981

YEAR	ACRES HARVESTED	YIELD PER ACRE	PRODUCTION
	1,000	Tons	1,000 Tons
1971	31	2.55	79
1972	28	2.25	63
1973	28	2.55	71
1974	25	2.55	64
1975	26	2.60	68
1976	26	2.45	64
1977	28	2.30	64
1978	28	2.60	73
1979	27	2.90	78
1980	27	2.40	65
1981	28	2.80	78

ALL OTHER HAY: ACREAGE, YIELD AND PRODUCTION, MASSACHUSETTS, 1971-1981

YEAR	ACRES HARVESTED	YIELD PER ACRE	PRODUCTION
	1,000	Tons	1,000 Tons
1971	81	2.00	162
1972	81	1.75	142
1973	84	2.15	181
1974	90	2.00	180
1975	92	2.05	189
1976	94	2.00	188
1977	92	1.90	175
1978	92	2.15	198
1979	92	2.25	207
1980	92	2.10	193
1981	93	2.15	200

POTATOES: ACREAGE, YIELD, PRODUCTION, PRICE AND VALUE, MASSACHUSETTS, 1971-1981

YEAR	ACRES HARVESTED	YIELD PER ACRE	TOTAL PRODUCTION	SEASON AVERAGE PRICE PER CWT.	VALUE OF PRODUCTION
		Cwt.	1,000 Cwt.	Dollars	1,000 Dollars
1971	4,800	210	1,008	2.50	2,520
1972	4,000	160	640	3.90	2,496
1973	4,000	160	640	4.90	3,336
1974	4,400	200	880	3.50	3,080
1975	3,900	205	800	5.00	4,000
1976	3,500	220	770	5.80	4,466
1977	3,700	240	888	5.40	4,795
1978	3,600	225	810	6.30	5,103
1979	3,400	220	748	5.60	4,189
1980	3,400	220	748	7.50	5,610
1981	3,300	225	743	6.25	4,644

TOBACCO, SHADE TYPE: ACREAGE, YIELD, PRODUCTION, PRICE AND VALUE, MASSACHUSETTS, 1971-1981

YEAR	ACRES HARVESTED	YIELD PER ACRE	TOTAL PRODUCTION	PRICE PER POUND	VALUE OF PRODUCTION
		Pounds	1,000 Pounds	Dollars	1,000 Dollars
1971	1,300	1,725	2,243	4.00	8,972
1972	1,150	1,250	1,438	4.85	6,974
1973	1,300	1,210	1,573	5.15	8,101
1974	1,300	1,610	2,093	6.00	12,558
1975	1,250	1,335	1,669	6.40	10,682
1976	1,050	1,480	1,554	5.40	8,392
1977	980	1,600	1,568	6.00	9,408
1978	860	1,300	1,118	7.50	8,385
1979	770	1,400	1,078	8.50	9,163
1980	940	1,475	1,387	9.80	13,593
1981	900	1,500	1,418	10.00	14,180

TOBACCO, HAVANA SEED: ACREAGE, YIELD, PRODUCTION, PRICE AND VALUE, MASSACHUSETTS, 1971-1981

YEAR	ACRES HARVESTED	YIELD PER ACRE	TOTAL PRODUCTION	PRICE PER POUND	VALUE OF PRODUCTION
		Pounds	1,000 Pounds	Dollars	1,000 Dollars
1971	310	2,050	636	0.61	388
1972	260	1,850	481	0.62	298
1973	210	1,850	389	0.72	280
1974	160	2,040	326	0.82	267
1975	170	1,650	281	0.98	275
1976	160	1,819	291	0.87	253
1977	180	1,880	338	0.98	331
1978	170	2,000	340	1.10	374
1979	220	1,850	407	1.20	488
1980	250	2,000	500	1.31	655
1981	240	2,300	552	1.40	773

FRUIT AND VEGETABLE HIGHLIGHTS

CRANBERRIES

Cranberry production of 1,180,000 barrels in 1981 was only 5,000 barrels short of the record 1980 crop. Value of the 1981 crop is estimated at $39.5 million, just slightly less than the 1980 crop's value.

Bloom was heavy and bees were active during the blooming period, giving a heavy set of fruit. Dry weather during late summer was the main concern as reservoir water levels were low for frost protection and harvest. Rains arrived in time for water harvesting and frost held off until the crop was harvested. Color was good, but berry size was small to medium.

APPLES AND PEACHES

Commercial apple production of nearly 2 million 42-pound units in 1981 was 17 percent less than in 1980. Total value of the 1981 crop, $16.3 million, was 11 percent more than the 1980 crop's value because of higher price. Peach production of 4,000 48-pound units in 1981 was only one-tenth of the preceding year's crop. The total value of the 1981 crop was $70,000. Bud damage from cold during winter and spring was the reason for the smaller apple and peach crops.

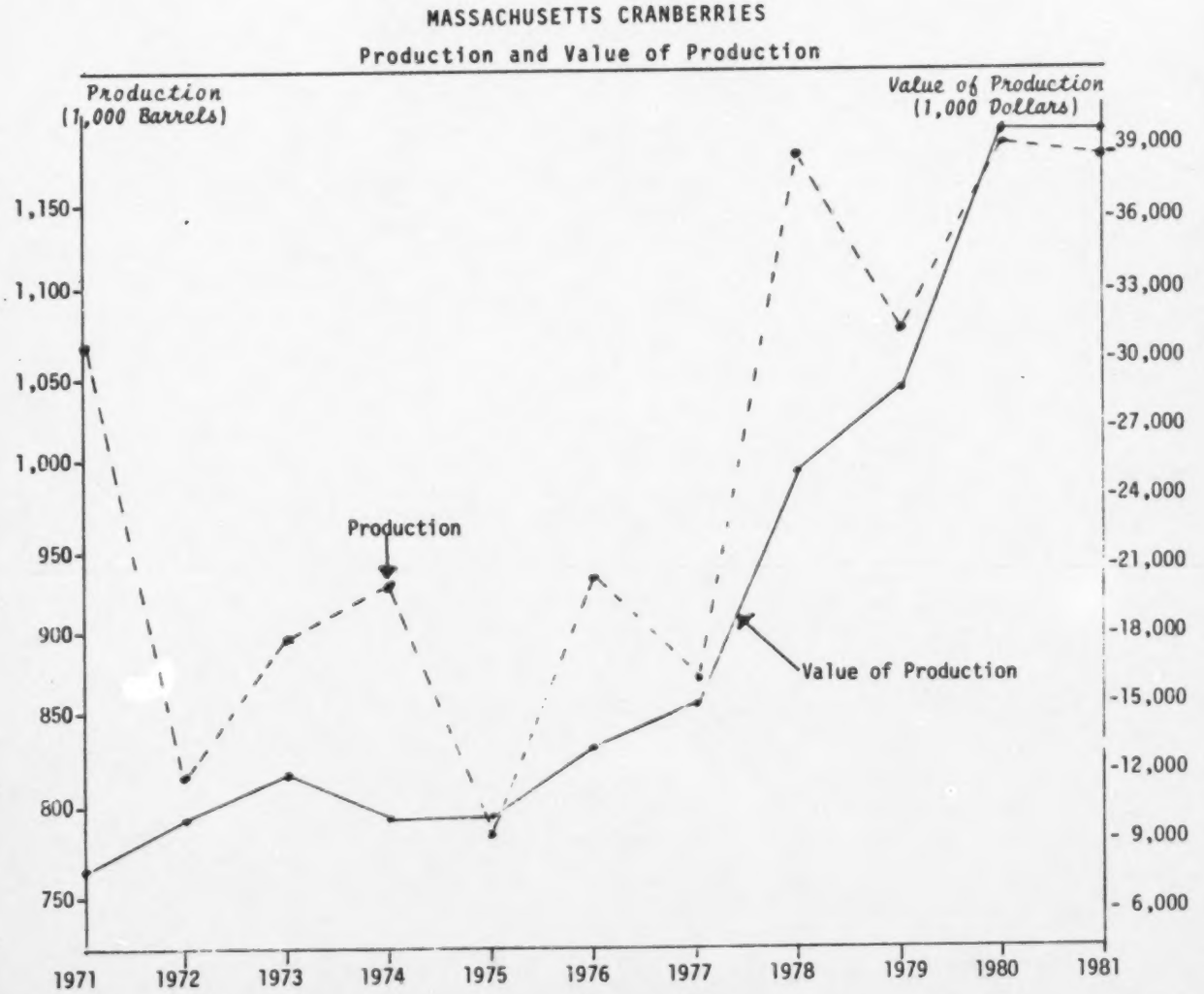
VEGETABLES

Commercial growers in Massachusetts produced 748,000 cwt. of sweet corn; 222,000 cwt. of cabbage and 163,000 cwt. of tomatoes for sale on the fresh produce market in 1981. Sweet corn production was 4 percent above 1980; cabbage, 43 percent above; and tomatoes, 14 percent above. The aggregate value of the three commodities of $13.5 million was 24 percent more than the equivalent 1980 value.

CRANBERRIES: ACREAGE, YIELD, PRODUCTION, UTILIZATION, PRICE AND VALUE, MASSACHUSETTS, 1971-1981

YEAR	ACRES	YIELD PER ACRE	PRODUCTION 1/	UTILIZATION			SEASON AVERAGE PRICE PER BARREL 3/	VALUE OF UTILIZED PRODUCTION 4/
				FRESH SALES	PROCESSED	SHRINKAGE 2/		
		Barrels	Barrels		1,000 Barrels		Dollars	1,000 Dollars
1971	11,200	95.7	1,072	239	441	57	10.70	7,886
1972	11,200	73.1	819	170	600	49	12.60	10,319
1973	11,200	80.4	901	246	563	92	13.60	12,254
1974	11,200	83.2	932	167	491	274	10.70	9,972
1975	11,200	70.1	785	162	508	115	13.00	10,205
1976	11,200	83.5	935	220	630	85	13.40	12,529
1977	11,200	78.1	875	207	576	92	17.70	15,488
1978	11,200	105.4	1,180	247	833	100	21.60	25,488
1979	11,200	96.4	1,080	130	880	70	26.60	28,728
1980	11,200	105.8	1,185	110	1,016	59	33.50	39,698
1981	11,200	105.4	1,180	n/a	n/a	n/a	n/a	39,530

1/ Includes cranberries that were put in set aside under the Cranberry Marketing Order.
2/ Berries paid for by processors and lost because of dehydration and berry breakdown after delivery.
3/ Equivalent return at first delivery point, screen basis.
4/ Excludes cranberries that were put in set aside under the Cranberry Marketing Order.



APPLES: PRODUCTION, PRICE AND VALUE, MASSACHUSETTS, 1971-1981

YEAR	PRODUCTION 1/			PRICE PER UNIT	VALUE OF UTILIZED PRODUCTION
	TOTAL	NOT UTILIZED 2/	HAVING VALUE		
	1,000 - 42 Pound Units			Dollars	1,000 Dollars
1971	2,738	238	2,500	2.75	6,878
1972	2,167	---	2,167	3.90	8,454
1973	1,976	---	1,976	5.59	11,039
1974	2,548	167	2,381	4.33	10,300
1975	2,500	167	2,333	4.37	10,192
1976	2,262	---	2,262	6.13	13,870
1977	2,262	72	2,190	5.38	11,776
1978	2,500	---	2,500	5.80	14,490
1979	2,262	---	2,262	6.51	14,725
1980	2,381	---	2,381	6.13	14,600
1981	1,976	---	1,976	8.23	16,268

1/ Estimates relate to production in orchards of 100 or more trees.
2/ Abandoned because of economic reasons.

COMMERCIAL APPLE PRODUCTION BY VARIETY, MASSACHUSETTS, 1971-1981

YEAR	CORTLAND	DELICIOUS	GOLDEN DELICIOUS	MCINTOSH	NORTHERN SPY	ROME BEAUTY	OTHER	TOTAL PRODUCTION
				1,000 - 42 Pound Units				
1971	250	326	38	1,748	26	57	293	2,738
1972	124	248	36	1,481	14	17	248	2,167
1973	188	264	33	1,236	17	40	198	1,976
1974	143	260	40	1,764	21	45	274	2,548
1975	205	293	31	1,614	17	43	298	2,500
1976	210	288	55	1,360	21	45	283	2,262
1977	195	252	36	1,462	17	38	262	2,262
1978	171	331	38	1,538	21	31	369	2,500
1979	18	329	40	1,405	14	31	262	2,262
1980	190	324	36	1,500	19	36	276	2,381
1981	183	190	36	1,286	1/	24	257	1,976

1/ Included in other varieties.

PEACHES: PRODUCTION, PRICE AND VALUE, MASSACHUSETTS, 1971-1981

YEAR	PRODUCTION	PRICE PER UNIT	VALUE OF PRODUCTION
	1,000 - 48 Pound Units	Dollars	1,000 Dollars
1971	79	5.04	399
1972	35	8.16	289
1973	58	9.60	560
1974	35	8.64	306
1975	42	9.60	400
1976	35	12.48	442
1977	42	10.56	440
1978	38	13.92	522
1979	38	15.36	576
1980	42	14.40	600
1981	4	16.80	70

SWEET CORN: ACREAGE, YIELD, PRODUCTION, PRICE AND VALUE, MASSACHUSETTS, 1971-1981

YEAR	ACRES HARVESTED	YIELD PER ACRE	TOTAL PRODUCTION	AVERAGE PRICE PER CWT.	VALUE OF PRODUCTION
		Cwt.	1,000 Cwt.	Dollars	1,000 Dollars
1971	8,200	78	640	6.22	3,981
1972	7,100	75	533	6.93	3,694
1973	8,000	78	624	6.20	3,869
1974	8,200	62	508	8.90	4,521
1975	8,600	81	697	7.10	4,949
1976	8,200	72	590	7.71	4,549
1977	7,800	60	468	8.90	4,165
1978	7,200	88	634	7.00	4,438
1979	7,700	84	647	8.99	5,817
1980	8,200	88	722	9.09	6,563
1981	8,800	85	748	11.70	8,752

TOMATOES: ACREAGE, YIELD, PRODUCTION, PRICE AND VALUE, MASSACHUSETTS, 1971-1981

YEAR	ACRES HARVESTED	YIELD PER ACRE	TOTAL PRODUCTION	AVERAGE PRICE PER CWT.	VALUE OF PRODUCTION
		Cwt.	1,000 Cwt.	Dollars	1,000 Dollars
1971	750	200	150	12.50	1,875
1972	700	190	133	17.70	2,354
1973	730	195	142	17.40	2,471
1974	700	175	123	16.50	2,030
1975	630	210	132	18.00	2,376
1976	590	195	115	21.40	2,461
1977	560	190	106	20.40	2,162
1978	550	210	116	21.80	2,529
1979	510	190	97	24.60	2,386
1980	680	210	143	21.70	3,103
1981	760	215	163	20.10	3,276

MAPLE SYRUP

Production of maple syrup in the spring of 1981 totaled 40,000 gallons, more than twice the poor crop of 1980, and the highest total since 1966. This is expecially noteworthy because it directly followed one of the poorest sugaring seasons in several years. The sap that flowed in 1981 was exceptionally sweet and produced especially light syrup. Valued at a season average price of $18.70 per gallon, the syrup produced in 1981 had a total value of $748,000, more than twice the 1980 crop's value.

MAPLE SYRUP: PRODUCTION, DISPOSITION, PRICE AND VALUE, MASSACHUSETTS, 1971-1981

YEAR	PRODUCTION	SOLD	SEASON AVERAGE PRICE PER GALLON	VALUE OF PRODUCTION
	1,000 Gallons	1,000 Gallons	Dollars	1,000 Dollars
1971	25	24	7.80	195
1972	28	27	8.70	244
1973	20	19	9.40	188
1974	25	24	11.20	280
1975	31	30	10.70	332
1976	27	25	12.75	319
1977	27	25	13.00	351
1978	28	26	14.10	367
1979	30	28	15.90	477
1980	18	17	18.40	331
1981	40		18.70	748

MAPLE SYRUP PRICES: BY TYPE OF SALE AND SIZE OF CONTAINER, MASSACHUSETTS, 1971-1981

YEAR	RETAIL					WHOLESALE					ALL SALES EQUIVALENT PER GALLON
	GAL	½ GAL	QUART	PINT	½ PINT	GAL	½ GAL	QUART	PINT	½ PINT	
	Dollars										
1971	7.40	4.00	2.40	1.50	1.05	6.60	3.65	2.30	1.35	.85	7.80
1972	8.10	4.55	2.75	1.90	1.15	7.30	4.30	2.60	1.55	1.00	8.70
1973	9.00	5.00	3.10	2.25	1.25	8.30	4.60	2.85	1.80	1.10	9.40
1974	10.50	5.90	3.55	2.30	1.40	9.00	5.00	3.00	1.85	1.20	11.20
1975	11.10	6.20	3.75	2.50	1.50	10.00	5.45	3.30	2.05	1.15	10.70
1976	11.65	6.45	3.90	2.55	1.50	10.35	5.75	3.35	2.20	1.35	12.75
1977	12.30	6.90	4.05	2.65	1.80	11.20	6.05	3.70	2.40	1.50	14.20
1978	13.10	7.40	4.29	2.81	1.86	11.66	6.59	3.79	2.41	1.49	14.10
1979	14.88	8.37	4.84	3.12	2.13	12.53	7.13	4.09	2.66	1.77	15.90
1980	17.66	9.69	5.88	3.69	2.46	16.25	8.94	4.73	3.07	1.98	18.40
1981	18.69	10.73	6.23	4.07	2.59	16.44	9.39	5.39	3.33	2.01	18.70

FOLIAGE PLANTS FOR INDOOR OR PATIO USE: NUMBER OF PRODUCERS, SQUARE FEET IN PRODUCTION, NET VALUE OF SALES, MASSACHUSETTS, 1971-1981

YEAR	NUMBER OF PRODUCERS	SQUARE FEET IN PRODUCTION	AVERAGE VALUE PER SQUARE FOOT	PERCENTAGE OF SALES AT WHOLESALE	NET VALUE OF SALES 1/
		1,000 Square Feet			
1971	32	175	3.67	91	643
1972	46	246	3.52	95	865
1973	35	175	3.34	89	584
1974	76	581	5.24	76	3,203
1975	135	1,040	4.49	55	4,670
1976	131	965	4.92	62	4,743
1977	112	926	6.00	30	5,555
1978	127	927	5.36	56	4,970
1979	104	715	6.31	75	4,513
1980	84	611	7.15	53	4,370
1981	94	688	6.28	60	4,319

1/ Gross value of sales less cost of plant material purchased from other growers for growing on.

REPORTED TOTAL AVERAGE AREA USED FOR PRODUCTION AND DERIVED AVERAGE VALUE PER UNIT: CARNATIONS, CHRYSANTHEMUMS, POTTED LILLIES AND POTTED POINSETTIAS, MASSACHUSETTS, 1975-1981 1/

YEAR	CARNATIONS		CHRYSANTHEMUMS			POTTED LILLIES	POTTED POINSETTIAS
	STANDARD	MINIATURE	STANDARD	POMPON	POTTED		
			1,000 Square Foot Production Area				
1975	333	178	425	400	723	---	---
1976	342	209	341	417	576	336	952
1977	238	123	296	445	309	367	813
1978	149	132	257	366	427	295	1,009
1979	88	98	225	292	501	294	1,044
1980	50	56	173	283	544	193	980
1981	39	44	195	270	435	241	967
			Average Value Per Square Foot - Dollars				
1975	2.05	2.31	1.71	1.44	2.09	---	---
1976	2.31	1.81	2.31	1.46	2.46	2.69	1.86
1977	2.43	2.07	2.43	1.32	2.79	2.19	1.86
1978	1.50	2.58	2.56	1.77	2.45	2.62	2.04
1979	2.74	2.83	2.90	2.05	2.98	3.44	2.04
1980	3.00	2.98	2.58	2.21	3.54	3.80	2.38
1981	2.51	2.91	3.29	2.13	3.31	3.96	2.26

1/ Value figures for all plants are equivalent wholesale value of all sales.

CUT FLOWERS: NUMBER OF PRODUCERS, PRODUCTION, SALES, PRICE AND VALUE, MASSACHUSETTS, 1974-1981

TYPE AND YEAR	PRODUCERS 2/	SALES	PERCENTAGE OF SALES AT WHOLESALE	WHOLESALE PRICE	VALUE OF SALES AT WHOLESALE 1/
Standard Carnations	Number	1,000 Blooms	Percent	Cents	1,000 Dollars
1974	45	9,403	75	11.1	1,044
1975	34	5,549	65	12.3	683
1976	27	5,853	93	10.3	603
1977	24	3,851	89	11.2	431
1978	19	1,603	92	14.0	224
1979	14	1,238	84	20.0	241
1980	9	752	96	20.0	150
1981	5	704	97	13.9	98
Miniature Carnations		1,000 Bunches		Dollars	
1974	27	278	50	1.20	334
1975	23	273	65	1.51	412
1976	24	256	83	1.48	379
1977	20	222	89	1.15	255
1978	15	252	99	1.35	340
1979	15	175	96	1.58	277
1980	7	105	98	1.59	167
1981	6	65	99	1.97	128
Hybrid Tea Roses		1,000 Blooms		Cents	
1974	9	19,708	97	21.0	4,139
1975	9	13,483	69	23.9	3,222
1976	10	12,636	100	19.7	2,489
1977	13	10,575	100	26.2	2,771
1978	9	12,514	99	26.0	3,254
1979	11	13,651	99	24.4	3,331
1980	12	9,445	98	30.2	2,852
1981	9	7,346	99	36.0	2,645
Miniature Or Sweetheart Roses		1,000 Blooms		Cents	
1974	9	8,930	97	14.7	1,313
1975	9	9,114	72	11.7	1,066
1976	9	6,174	100	12.5	772
1977	9	6,537	100	16.3	1,066
1978	9	5,401	99	17.0	918
1979	8	7,020	99	17.3	1,214
1980	9	6,472	99	24.2	1,566
1981	9	4,812	99	24.8	1,193
Standard Chrysanthemums		1,000 Bunches		Cents	
1974	52	2,412	92	31.0	748
1975	54	2,341	92	31.1	728
1976	70	1,774	85	44.5	789
1977	58	1,721	92	41.7	718
1978	57	1,545	90	42.5	657
1979	53	1,355	83	48.1	652
1980	47	1,110	82	51.6	573
1981	38	1,171	79	54.8	642

(continued on next page)

CUT FLOWERS: NUMBER OF PRODUCERS, PRODUCTION, SALES, PRICE AND VALUE, MASSACHUSETTS, 1974-1981

TYPE AND YEAR	PRODUCERS 2/	SALES	PERCENTAGE OF SALES AT WHOLESALE	WHOLESALE PRICE	VALUE OF SALES AT WHOLESALE 1/
	Number	1,000 Blooms	Percent	Dollars	1,000 Dollars
Pompon Chrysanthemums					
1974	70	371	68	1.31	486
1975	102	377	67	1.53	577
1976	87	367	71	1.66	609
1977	89	356	54	1.65	587
1978	75	360	77	1.80	648
1979	60	338	58	1.77	598
1980	63	335	64	1.87	626
1981	51	314	66	1.83	575
Potted Chrysanthemums		1,000 Pots			
1974	60	503	68	1.93	971
1975	111	747	79	2.02	1,509
1976	115	609	78	2.33	1,419
1977	85	421	78	2.05	863
1978	87	402	63	2.60	1,045
1979	93	562	70	2.66	1,495
1980	73	762	45	2.53	1,928
1981	81	512	77	2.81	1,439
Snapdragons 3/		1,000 Stems		Cents	
1976	52	2,651	88	16.8	445
1977	50	1,792	89	19.7	353
1978	57	1,674	90	20.0	335
1979	40	1,416	88	20.3	287
1980	36	982	87	28.0	275
1981	33	947	83	29.7	281
Potted Geraniums 3/		1,000 Pots		Dollars	
1976	242	5,755	82	.88	5,064
1977	225	3,183	52	.75	2,387
1978	230	3,125	66	.85	2,656
1979	220	3,631	61	.91	3,304
1980	190	3,111	57	.94	2,924
1981	185	2,733	69	.95	2,596
Potted Lillies 3/		1,000 Pots		Dollars	
1976	111	364	87	2.48	903
1977	108	322	80	2.50	805
1978	101	258	73	3.00	774
1979	93	329	78	3.07	1,010
1980	78	245	68	2.99	733
1981	78	293	78	3.26	955
Potted Poinsettias 3/					
1976	146	634	79	2.79	1,769
1977	139	741	68	2.05	1,519
1978	136	750	67	2.75	2,063
1979	120	751	75	2.83	2,125
1980	112	760	57	3.07	2,333
1981	107	660	74	3.31	2,185

1/ Equivalent wholesale value of all sales. 2/ Beginning with 1973, number of producers is number who produce and sell $10,000 or more of fresh (cut) flowers, flowering and foliage plants, bedding plants and cultivated florist greens. Previously, the definition included growers who sold $2,000 or more of the above mentioned items. 3/ Data for years prior to 1976 not available.

CROP AND LIVESTOCK PRODUCTION: RANK AMONG STATES, MASSACHUSETTS AND NEW ENGLAND, 1981

ITEM	UNIT	MASSACHUSETTS			NEW ENGLAND		
		PRODUCTION	RANK	% US TOTAL	PRODUCTION	RANK	% US TOTAL
		1,000			1,000		
CROPS:							
Cranberries	barrels	1,180	1	44.3	1,180	1	44.3
Apples	pounds	83,000	14	1.1	279,000	8	3.6
Peaches	pounds	200	32	*	NA		
Corn for Silage	tons	780	29	.7	4,374	7	3.8
Hay	tons	278	43	.2	2,047	27	1.4
Potatoes	cwt.	743	30	.2	28,696	3	8.6
Tobacco	pounds	1,818	16	.1	6,993	13	.3
Vegetables - Processing - All	tons	9	29	.1	22	25	.2
Fresh:							
Cabbage	cwt.	222	16	1.1	NA		
Sweet Corn	cwt.	748	7	5.4	NA		
Tomatoes	cwt.	163	18	6.2	NA		
Maple Syrup	gallons	40	8	2.8	792	1	56.2
LIVESTOCK AND POULTRY:							
Eggs	each	321,000	40	.5	3,251,000	6	4.7
Milk	pounds	578,000	40	.4	4,882,000	7	3.7
Honey	pounds	253	44	.1	1,190	[illegible]	6
Wool	pounds	49	37	.1	286	[illegible]	.3
Calves	head	22	43	.2	247	[illegible]	2.4
Cattle	head	24	43	.1	131	38	.3
Hogs & Pigs	head	55	42	.1	141	34	.1
Lambs	head	3	37	.1	19	29	.3
Sheep	head	1	39	.1	4	30	.3

FARMS: NUMBER AND LAND, MASSACHUSETTS AND NEW ENGLAND, 1971-1982 1/

YEAR	MASSACHUSETTS			NEW ENGLAND		
	NUMBER OF FARMS	AVERAGE SIZE	LAND IN FARMS	NUMBER OF FARMS	AVERAGE SIZE	LAND IN FARMS
	Number	Acres	1,000 Acres	Number	Acres	1,000 Acres
1971	5,900	122	720	29,790	193	5,743
1972	5,700	123	700	28,760	192	5,510
1973	5,500	124	680	28,040	192	5,378
1974	5,500	124	680	27,740	192	5,318
1975	5,800	121	700	26,120	197	5,135
1976	6,300	111	700	27,960	185	5,165
1977	6,200	111	690	28,300	182	5,155
1978	5,900	115	680	28,700	180	5,165
1979	6,200	110	680	29,900	172	5,145
1980	5,900	115	680	30,360	169	5,145
1981	5,600	118	660	30,420	170	5,185
1982 2/	5,400	119	640	30,520	170	5,185

1/ A farm is a place that sells or normally would sell $1,000 of agricultural products.
2/ Preliminary

COMMERCIAL FERTILIZER: CONSUMPTION BY KIND & PLANT NUTRIENTS, MASSACHUSETTS, 1965-1981

YEAR ENDED JUNE 30	KIND OF FERTILIZER				PRIMARY NUTRIENTS		
	MIXED FERTILIZER	PRIMARY NUTRIENT MATERIALS	SECONDARY & MICRO-NUTRIENTS	TOTAL FERTILIZER	N	AVAILABLE P_2O_5	K_2O
	Tons						
1965	76,830	16,415	76	93,321	8,522	8,856	8,122
1970	52,953	16,580	63	69,596	8,159	6,325	6,071
1975	51,814	15,216	36	67,066	7,866	5,588	6,049
1976	55,548	15,335	150	71,033	8,803	5,984	6,779
1977	53,094	14,882	28	68,004	9,015	5,872	6,607
1978	71,471	14,970	62	86,503	11,501	7,644	8,552
1979	58,397	11,393	224	70,014	10,275	6,220	7,530
1980	50,417	15,207	117	65,741	9,081	5,444	6,375
1981	57,810	10,504	466	68,780	9,057	7,170	6,506

PRICES PAID BY FARMERS: INDEX NUMBERS, ANNUAL AVERAGE, UNITED STATES, 1971-1981, BY YEARS (1977=100)

YEAR	COMMODITIES & SER., INTEREST TAXES & WAGE RATES	PRODUCTION ITEMS INTEREST, TAXES, & WAGE RATES	PRODUCTION ITEMS	INTEREST PAYABLE PER ACRE	TAXES PAYABLE PER ACRE	WAGE RATES FOR HIRED FARM LABOR 1/
1971	58	56	57	42	72	59
1972	62	60	61	46	75	63
1973	71	72	73	54	77	69
1974	81	81	83	65	81	79
1975	89	89	91	76	87	85
1976	95	95	97	87	94	93
1977	100	100	100	100	100	100
1978	108	109	108	118	100	107
1979	123	125	125	141	107	117
1980	138	139	138	168	117	127
1981	150	150	148	195	124	136

1/ Simple average of quarterly indexes seasonally adjusted.

INDEX NUMBERS OF PRICES RECEIVED BY FARMERS, BY COMMODITY GROUPS, UNITED STATES ANNUAL AVERAGE, 1971-1981 (1977=100)

YEAR	CROPS								LIVESTOCK & PRODUCTS				ALL FARM PRODUCTS
	FOOD GRAINS	FEED GRAINS AND HAY	TOBACCO	COTTON	OIL BEARING CROPS	FRUIT	COMMERCIAL VEGETABLES	ALL CROPS	DAIRY PRODUCTS	POULTRY AND EGGS	MEAT ANIMALS	ALL LIVESTOCK	
1971	61	59	64	40	46	67	65	56	61	59	72	67	62
1972	70	57	70	48	51	72	65	60	63	60	88	77	69
1973	138	90	74	54	93	84	76	91	74	101	118	104	98
1974	192	134	85	85	96	86	81	117	86	94	98	94	105
1975	155	127	93	68	81	85	92	105	90	103	100	98	101
1976	129	120	93	99	85	80	91	102	100	102	101	101	102
1977	100	100	100	100	100	100	100	100	100	100	100	100	100
1978	122	101	109	91	93	148	105	105	109	106	134	124	115
1979	147	114	118	96	103	144	110	116	124	111	166	147	132
1980	165	132	125	114	102	124	113	125	135	112	156	144	134
1981	166	141	140	111	110	129	136	134	142	116	150	143	138

FARM BALANCE SHEET (Excluding Farm Households), MASSACHUSETTS, JANUARY 1, 1977-1981

ITEM	1977	1978	1979	1980	1981
			Million Dollars		
Assets:					
Real Estate 1/	663.0	725.4	831.6	896.0	949.2
Livestock and Poultry 2/	46.7	49.0	65.3	78.8	89.3
Machinery and Motor Vehicles 3/	146.7	154.0	181.5	199.7	209.6
Crops 4/	19.5	17.8	26.2	22.8	25.2
Financial Assets	46.4	48.3	52.0	71.1	51.1
Total Farm Assets	922.2	994.4	1,156.5	1,268.5	1,324.4
Claims:					
Real Estate Debt 5/	71.6	62.9	64.1	76.3	86.6
Non-Real Estate Debt 6/	54.0	55.7	103.7	128.1	128.5
Total Farm Debt	125.6	118.6	167.8	204.4	215.1
Equity	796.7	875.8	988.7	1,064.1	1,109.2

1/ Excludes value of operator dwellings.
2/ Excludes horses, mules, and broilers.
3/ Includes only farm share value for trucks and autos.
4/ All crops held on farms including crops under CCC and crops held off farms by farm operators.
5/ Excludes debt on operator dwellings.
6/ Excludes debt for non-farm purposes.

FARM PRODUCTION EXPENSES, MASSACHUSETTS, 1976-1980

CURRENT FARM OPERATING EXPENSES	1976	1977	1978	1979	1980
			Million Dollars		
Feed	44.8	42.5	37.9	42.6	45.4
Livestock	2.7	3.2	3.3	1.4	1.3
Seed	6.3	6.7	7.2	7.9	9.1
Fertilizer and Lime	6.2	5.8	8.0	7.2	7.8
Repairs and Operation of Capital Items	24.3	25.3	30.1	37.1	43.1
Hired Labor	40.4	46.8	48.0	55.3	62.9
Miscellaneous	27.4	25.7	33.3	41.9	45.3
Total Current Farm Operating Expenses	152.2	156.0	167.7	193.4	214.9
Depreciation and Other Consumption of Farm Capital	31.9	30.2	35.3	39.0	44.3
Taxes on Farm Property	14.1	15.4	14.1	14.2	15.1
Interest on Farm Mortgage Debt	6.5	6.0	5.8	6.5	7.3
Net Rent to Non-Operator Landlord	-1.0	-.4	-.2	-.1	-.1
Total Production	203.7	207.2	222.9	253.0	281.4

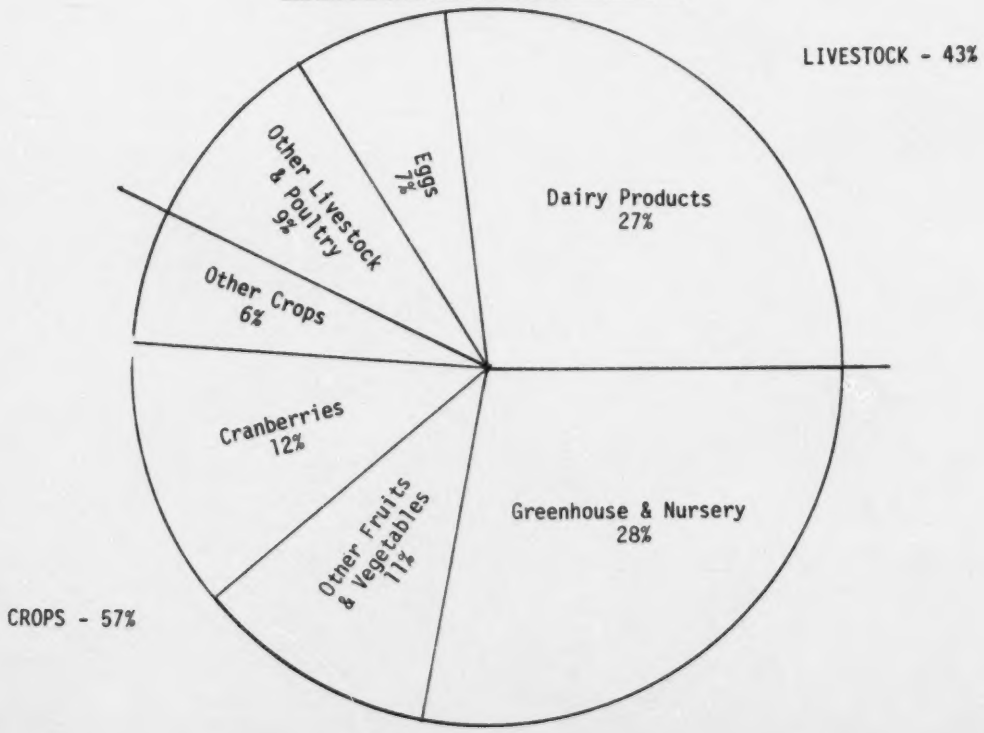
GROSS INCOME AND NET INCOME FROM FARMING, MASSACHUSETTS, 1950-1980

ITEM	1950	1960	1970	1975	1976	1977	1978	1979	1980
				Million Dollars					
Gross Farm Income:									
Cash Receipts From Farm Marketing	181.6	164.7	156.9	201.5	219.4	257.7	279.6	299.8	308.5
Government Payment	.6	.7	.6	.6	.6	.6	.8	.6	.7
Non-Money Income	19.3	15.5	13.3	21.3	23.2	24.2	26.8	29.8	32.3
Other Farm Income	.1	.7	1.5	3.2	3.5	3.2	3.5	4.3	4.5
Total	201.6	181.6	172.3	226.5	246.7	285.7	310.6	334.5	346.0
Farm Production Expenses	147.2	135.6	132.0	191.2	203.7	207.2	222.9	253.0	281.4
Net Farm Income Before Inventory Adjustment	54.4	46.1	40.4	35.3	42.9	78.5	87.8	81.5	64.6
Net Change in Farm Inventory	-2.1	1.3	.2	-1.3	4.1	28.7	5.0	.8	-5.5
Net Farm Income After Inventory Adjustment	52.3	47.3	40.6	34.1	47.0	107.2	92.8	82.3	59.1

CASH RECEIPTS FROM FARM MARKETINGS, MASSACHUSETTS, 1979-1981

COMMODITY	1979	1980	1981
		Thousand Dollars	
LIVESTOCK AND LIVESTOCK PRODUCTS			
Cattle and Calves	12,728	13,017	13,100
Hogs	7,841	5,988	5,515
Sheep and Lambs	163	179	161
Dairy Products	73,833	79,726	85,989
Chickens	653	525	817
Eggs	20,638	20,177	22,933
Turkeys	1,820	1,927	2,345
Miscellaneous Poultry	2,573	2,308	2,875
Miscellaneous Livestock	3,189	3,151	3,118
Total Livestock and Livestock Products	123,438	126,998	136,853
CROPS			
Hay	2,463	2,346	2,509
Tobacco	8,404	10,833	14,895
Potatoes	4,153	4,338	5,136
Cabbage	878	1,237	1,465
Sweet Corn	5,817	6,563	8,752
Tomatoes	2,386	3,103	3,276
Miscellaneous Vegetables	3,298	2,345	2,371
Apples	11,799	13,103	12,590
Peaches	544	570	35
Cranberries	27,972	30,562	39,176
Berries	1,611	1,365	1,404
Miscellaneous Fruits	249	260	283
Maple Products	445	313	788
Forest Products	1,308	1,308	1,308
Greenhouse and Nursery	92,447	91,372	90,556
Miscellaneous Crops	231	248	143
Total Crops	164,005	169,866	184,687
TOTAL RECEIPTS	287,443	296,864	321,540

MASSACHUSETTS CASH RECEIPTS - 1981



FARM PRODUCTION EXPENDITURES, NORTHEAST 1/ AND UNITED STATES, 1980

EXPENDITURE 2/	NORTHEAST		UNITED STATES	
	AVERAGE PER FARM 3/	TOTAL EXPENDITURE 4/	AVERAGE PER FARM 3/	TOTAL EXPENDITURE 4/
	Dollars	1,000 Dollars	Dollars	1,000 Dollars
TOTAL FARM PRODUCTION EXPENDITURES	46,982	8,022,615	56,392	136,646,084
LIVESTOCK & POULTRY:	4,556	778,047	7,187	17,355,912
Cattle Purchased	3,128	534,074	5,844	14,162,128
Hogs & Pigs Purchased	151	25,781	446	1,081,389
Sheep & Lambs Purchased	10	1,731	75	181,972
Poultry Purchased	900	153,619	422	1,023,463
Other Livestock & Poultry Purchased	254	43,344	285	690,373
Other 5/	114	19,499	89	216,587
FARM SERVICES:	4,678	798,845	8,803	21,332,066
Custom Hire	293	50,049	842	2,040,937
Veterinarian, Medicine & Supplies	607	103,676	432	1,045,774
Hired Transportation For Delivery To Farm	104	17,727	84	202,493
Insurance	838	143,164	849	2,057,047
Marketing Expenses (Crop & Livestock)	1,170	199,715	958	2,320,865
Miscellaneous Farm Business	634	108,230	713	1,728,555
Rent	1,032	176,285	4,926	11,936,395
Cash Rent	730	124,645	1,580	3,829,423
Share Rent	302	51,640	3,346	8,106,972
FEED:	9,054	1,545,983	8,294	20,097,505
Grains	2,332	398,243	2,643	6,404,907
Hays & Forages	313	53,509	831	2,014,710
Mixed Or Formula Feeds	6,177	1,054,769	4,399	10,660,234
Other Feeds, Additives and Ingredients	222	37,923	326	788,960
Pasture & Grazing Livestock	9	1,538	94	228,693
WAGES & CONTRACT LABOR:	5,204	888,615	4,169	10,103,288
Cash Wages	3,998	682,681	3,255	7,886,203
Contract Labor	253	43,211	314	761,097
Total Perquisites Furnished	953	162,723	601	1,455,988
INTEREST:	2,701	461,219	4,365	10,575,982
Farm Real Estate	1,696	289,647	2,304	5,582,159
Operating Loans 6/	1,005	171,571	2,061	4,993,822
Landlord Farm Real Estate	54	9,289	140	338,114
FERTILIZER, LIME & SOIL CONDITIONERS: 7/	3,032	517,708	4,198	10,171,929
Custom Applied Fertilizer	473	80,740	1,370	3,320,612
Not Custom Applied Fertilizer	2,227	380,309	2,291	5,552,507
Lime & Soil Conditioners	315	53,874	179	432,885
FUELS & ENERGY:	3,273	558,850	4,094	9,919,884
Gasoline - Delivered Bulk To Farm	943	161,008	1,105	2,678,195
Gasoline - Purchased At Service Station	203	34,714	326	791,094
Diesel Fuel	746	127,330	1,306	3,165,271
Fuel Oil & Kerosene	312	53,281	67	163,108
L.P. Gas	165	28,181	280	678,782
Natural Gas	27	4,545	112	270,438
Motor Oil, Grease & Special Fluids	110	18,751	157	380,181
Electricity (Excluding Irrigation)	735	125,443	223	540,422
Electricity For Irrigation	8	1,284	511	1,239,070
FARM & MOTOR SUPPLIES:	3,184	543,645	2,904	7,037,474
Motor Vehicle Operating Costs Other Than Fuels	1,656	282,705	1,996	4,836,030
Miscellaneous Farm Supplies	921	157,269	690	1,673,038
Marketing Containers	607	103,671	218	528,406

See Footnotes, page 33

FARM PRODUCTION EXPENDITURES, NORTHEAST 1/ AND UNITED STATES, 1980

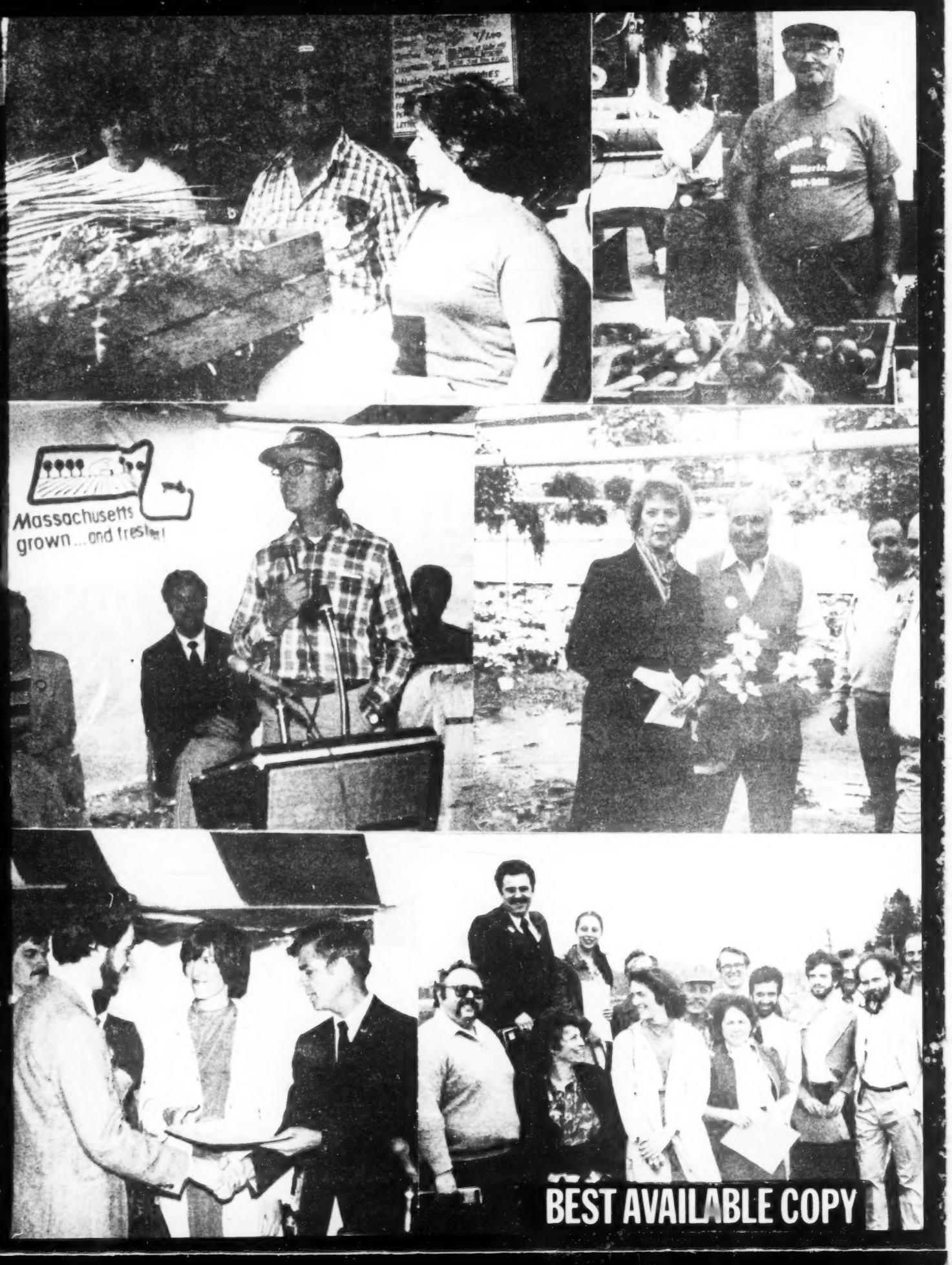
EXPENDITURE 2/	NORTHEAST		UNITED STATES	
	AVERAGE PER FARM 3/	TOTAL EXPENDITURE 4/	AVERAGE PER FARM 3/	TOTAL EXPENDITURE 4/
	Dollars	1,000 Dollars	Dollars	1,000 Dollars
BUILDING, FENCING & FARM IMPROVEMENTS: 8/	2,888	493,193	2,779	6,734,298
New Building Construction & Remodeling	1,730	295,484	1,461	3,540,257
Building Maintenance & Repair	481	82,134	261	632,267
Fencing Expenses	142	24,198	147	356,511
Maintenance & Repairs (Other)	144	24,592	274	662,952
New Construction Improvements (Other)	361	61,617	618	1,496,413
TRACTORS & SELF-PROPELLED MACHINERY:	1,466	250,355	2,580	6,251,644
Tractors	1,172	200,066	1,514	3,668,299
Tractors, New	776	132,574	906	2,194,604
Tractors, Used	295	67,492	608	1,473,695
Self-Propelled Machinery	269	45,993	999	2,421,883
Leasing Or Rental, Tractors	19	3,262	51	124,372
Leasing Or Rental, Self-Propelled	2	293	15	37,091
OTHER FARM MACHINERY, IMPLEMENTS & LIVESTOCK EQUIP:	2,593	442,842	1,975	4,786,324
Farm Machinery, Not Self-Propelled	1,326	226,407	1,409	3,413,288
Dairy, Poultry & Other Livestock Equipment	1,079	184,201	337	816,638
Repair & Maintenance Livestock Equipment	163	27,785	169	410,036
Leasing Or Rental Other Farm Machinery & Equipment	26	4,448	60	146,361
SEEDS & PLANTS:	1,307	223,175	1,615	3,912,317
Seed For Field Crops And Small Grains	670	114,403	1,111	2,692,940
TAXES:	1,433	244,665	1,116	2,703,737
Farm Real Estate	1,078	184,039	829	2,008,859
Other Property Tax 6/	355	60,627	287	694,877
Landlord Farm Real Estate	344	58,733	566	1,372,224
AUTOS, TRUCKS & OTHER VEHICLES: 9/	821	140,196	1,061	2,570,907
Autos	91	15,517	158	381,839
Trucks	593	101,342	772	1,871,032
Trucks, New	328	55,985	455	1,102,926
Trucks, Used	266	45,358	317	768,106
AGRICULTURAL CHEMICALS: 7/ 10/	775	132,404	1,267	3,070,000
Pesticides For Crops & Crop Storage	719	122,800	1,114	1,047,544
Pesticides For Livestock, Poultry & Buildings	45	7,710	49	120,666
UNALLOCATED OTHER EXPENSES:	17	2,871	9	22,817

1/ Includes eleven states: Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island and Vermont.
2/ Farm share.
3/ Total expenditure divided by number of farms.
4/ Totals may not add, due to rounding.
5/ Excludes veterinarian fees, medicine and breeding fees.
6/ Includes landlord expenditures.
7/ Landlord expenditure included only in total.
8/ "All Other Improvements" included in total only.
9/ "Other Vehicles" included in total only.
10/ Includes seed treatments.

UNITED STATES: CIVILIAN PER CAPITA CONSUMPTION OF MAJOR FOOD COMMODITIES, 1973-1980 1/

COMMODITY	1973	1974	1975	1976	1977	1978	1979	1980 2/
	Pounds							
Meats:	141.5	151.2	143.7	153.0	152.3	146.9	144.9	147.6
Beef	80.5	85.6	87.9	94.4	91.8	87.2	78.1	76.5
Veal	1.5	1.9	3.4	3.3	3.2	2.4	1.7	1.5
Lamb and Mutton	2.4	2.0	1.8	1.6	1.5	1.4	1.3	1.3
Pork	57.1	61.7	50.6	53.7	55.8	55.9	63.8	68.3
Fish (edible weight):	12.8	12.1	12.2	12.9	12.7	13.4	13.0	12.7
Canned	5.0	4.7	4.3	4.2	4.6	5.0	4.8	4.5
Poultry Products:								
Eggs	36.7	36.0	35.1	34.3	34.0	34.6	35.3	34.6
Chicken (ready-to-cook)	40.4	40.7	40.1	42.7	44.1	46.7	50.6	50.0
Turkey (ready-to-cook)	8.5	8.8	8.5	9.1	9.1	9.1	9.9	10.5
Dairy Products:								
Cheese (excluding cottage)	13.6	14.6	14.3	15.7	16.1	17.0	17.2	17.6
Condensed and evaporated whole milk	5.9	5.6	5.3	5.0	4.3	4.1	4.1	3.8
Fluid milk and cream (product weight)	272.0	262.0	267.0	264.0	260.0	257.0	254.0	250.0
Ice cream (product weight)	17.3	17.4	18.5	17.9	17.5	17.4	17.1	17.3
Fats and Oils — Total fat content	53.3	52.4	52.3	54.8	53.0	54.6	55.8	55.9
Butter (actual weight)	4.8	4.5	4.7	4.3	4.3	4.4	4.5	4.4
Margarine (actual weight)	11.1	11.1	11.0	11.9	11.4	11.2	11.2	11.2
Lard	3.3	3.2	2.8	2.6	2.2	2.2	2.5	2.5
Shortening	17.1	16.9	17.0	17.7	17.2	17.8	18.4	18.3
Other edible fats and oils	20.3	19.8	19.9	21.5	21.0	22.1	22.4	22.7
Fruits:								
Fresh	73.5	76.0	80.4	82.5	79.3	79.6	80.3	84.0
Citrus	26.5	26.6	28.4	28.1	25.5	25.7	23.8	27.8
Noncitrus	47.0	49.4	52.0	54.4	53.8	53.9	56.5	56.2
Processed:								
Canned fruit	21.2	19.5	19.2	18.9	19.2	18.1	18.1	17.4
Canned juice	15.0	13.1	14.7	14.6	13.7	16.5	17.0	17.3
Frozen (including juices)	12.1	12.0	14.1	13.6	14.1	12.6	12.6	12.7
Chilled citrus juices	5.2	5.2	5.6	6.1	5.7	6.1	5.5	5.9
Dried	2.5	2.4	2.9	2.6	2.5	2.1	2.7	2.9
Vegetables:								
Fresh 3/	89.8	91.6	90.3	91.4	93.4	95.3	97.5	99.9
Canned (excluding potatoes)	54.0	52.9	51.9	53.0	53.1	51.9	52.3	49.8
Frozen (excluding potatoes)	10.6	10.1	9.6	9.8	10.2	10.7	11.2	10.4
Fresh potatoes	49.3	46.0	51.7	48.1	51.5	47.7	49.4	49.3
Frozen potato products	13.2	13.1	13.7	14.6	15.7	17.2	17.7	16.9
Sweet potatoes 4/	4.5	4.7	4.9	4.8	4.4	4.9	4.9	4.4
Grains:								
Wheat flour 5/	113	111	114	119	115	115	117	117
Rice	7.0	7.5	7.6	7.1	7.5	5.7	9.4	9.3
Other:								
Coffee	10.0	9.6	9.2	9.4	6.9	7.9	8.5	7.8
Cocoa	3.4	3.0	2.6	3.0	2.6	2.7	2.6	2.6
Peanuts (shelled)	6.6	6.4	6.6	6.2	6.3	6.8	6.8	6.1
Dry edible beans	6.4	6.6	6.4	6.1	6.0	5.7	6.3	6.5
Melons	19.6	17.0	17.2	18.3	18.1	19.8	18.8	16.9
Sugar (refined)	100.8	95.6	89.1	93.4	94.2	91.4	89.3	83.6
Corn sweeteners 6/	23.5	25.6	28.8	31.9	35.3	39.2	43.6	48.5

1/ Quantity in pounds, retail weight unless otherwise shown. Data on calendar year basis except for dried fruits, fresh citrus fruits, peanuts, dry beans and rice which are on a crop-year basis. 2/ Preliminary. 3/ Commercial production for sale as fresh produce. 4/ Table stock and processed. 5/ White, whole wheat, and semolina flour. 6/ Fructose and glucose.



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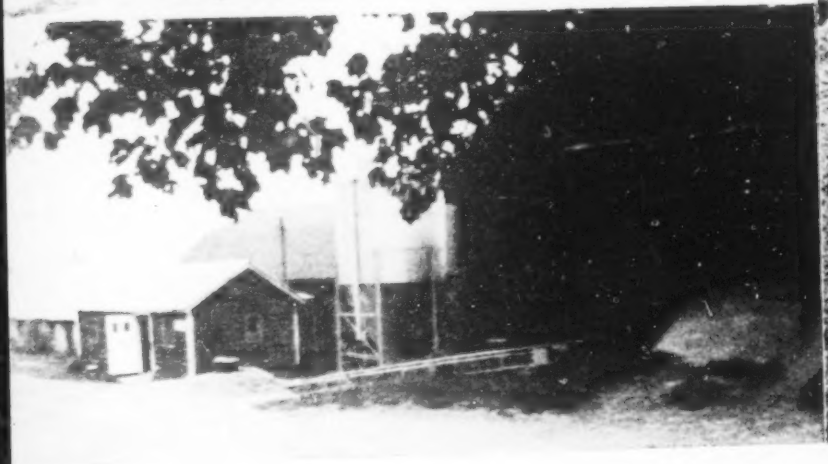

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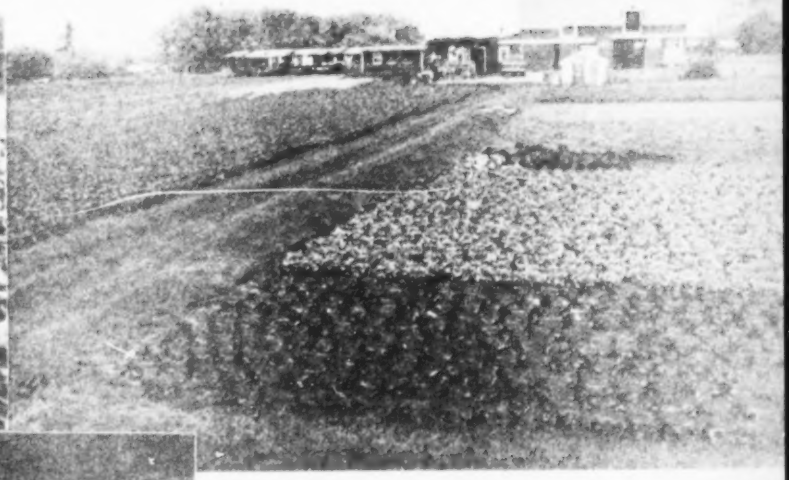

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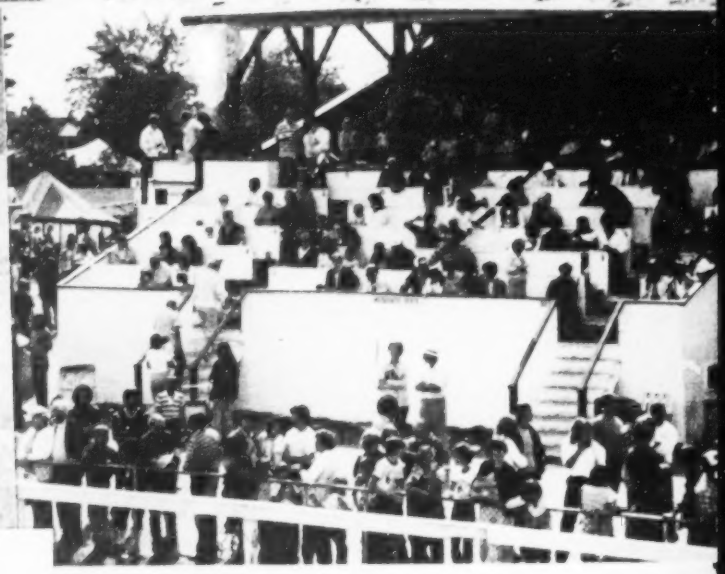

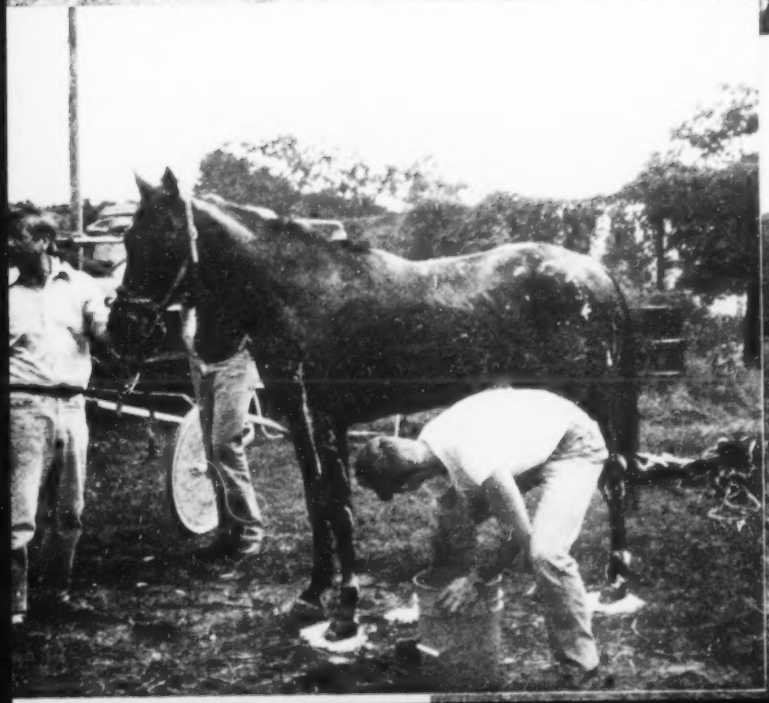

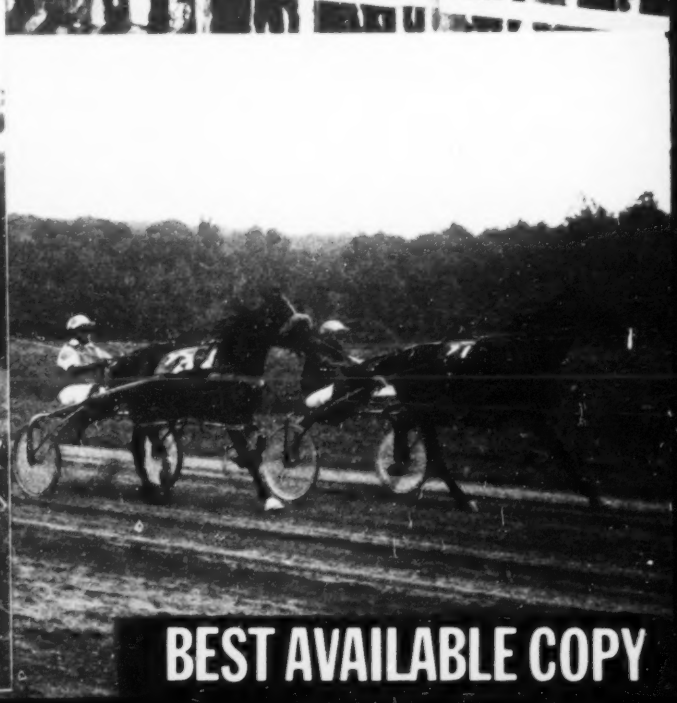

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ANNUAL REPORT

MASSACHUSETTS DEPARTMENT

OF

FOOD AND AGRICULTURE

FISCAL YEAR 1982

JULY 1, 1981

TO

JUNE 30, 1982

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AGRICULTURAL PRESERVATION RESTRICTION PROGRAM

William H. King, Land Use Administrator
Warren K. Colby, Project Coordinator

DIVISION OF AGRICULTURAL LAND USE

Thomas W. Storrow, Director

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AGRICULTURAL PRESERVATION RESTRICTION PROGRAM
Thomas Storrow, Administrator

The Agricultural Preservation Restriction (APR) Program was established by the legislature in December, 1977, to protect the Commonwealth's rapidly diminishing farmland resources through the purchase of Agricultural Preservation Restrictions, commonly known as development rights. It is a voluntary program whereby farmland owners apply to the Department of Food and Agriculture to sell a restriction on all or a portion of their property. After field inspections, a screening and selection process, appraisals, and approval by the Agricultural Lands Preservation Committee, the Commonwealth acquires these deed restrictions, which run in perpetuity, and prohibit all non-agricultural uses. Title to the land still rests with the landowner who enjoys all the traditional rights of property ownership, except the right to develop the land for non-agricultural purposes.

Since the program's inception, more than 5,605 acres have been protected statewide. There are also more than 4,700 acres currently under consideration. During the past four years the legislature has appropriated five million dollars each year for a total of twenty million dollars to fund the program. The Massachusetts program is now the largest, most active statewide purchase of development rights program in the country and is being used as a model by other states considering similar farmland protection techniques.

The Division of Land Use within the Department of Food and Agriculture is responsible for administering the Agricultural Preservation Restriction Program. Since 1978, two full time staff members and various appraisal and legal consultants have been providing the needed expertise to implement and manage this unique farmland protection effort.

Background

During the last 40 years, the Commonwealth of Massachusetts has lost nearly three-fourths of its land in farms and one half of its productive cropland as a result of unbanization and changes in the agricultural economy. Tremendous changes have occurred in regards to agricultural technology and resource use; farm size, mechanization and capital investment have all increased substantially. Land is used more intensively today and productivity per acre has increased. Consequently, there are fewer farms, farmers and farm laborers. Total farm production has declined somewhat, though not in equal proportion to the decline in the agricultural land base.

As more and more farmland is lost permanently to urbanization, it has become apparent that agriculture is in serious jeopardy of being lost as a viable component of the Massachusetts economy. Sprawling urban development and land speculation subvert farming and inflate the value of available land beyond the financial reach of farmers. If one farm in an area is sold for speculation or development, then all the farmers in the vicinity begin to lose faith in agriculture's future. Often, the necessary investments in livestock, equipment, soil fertility and farm buildings are not made and farm income begins to fall. Because of high land values and development pressures very few farms are transferred to the next generation and the agricultural community becomes debilitated. In some cases this transition has happened prematurely and excellent agricultural land becomes idle. When land is lost or idled, society loses the benefit of

its productive use. The underlying philosophy of the APR program is that this loss of productive cropland must be curtailed and deflected to the state's millions of non-farm acres, if agriculture is to have a permanent role in the Massachusetts economy.

APR Program Objectives

Together with the Farmland Assessment Act (Chapter 61A M.G.L.), the APR Program is the cornerstone of the state's agriculture land protection policy. The main objective of the Agricultural Preservation Restriction Program is to try to arrest the continued conversion of productive land through deed restriction and revitalize the agricultural industry by making land more accessible to farmers and their operations more financially secure. The specific goals of the Program include the following:

1. To retain the best and most productive agricultural land remaining in the Commonwealth;

2. To provide an opportunity for farmers to purchase farmland at affordable prices;

3. To help farmland owners overcome estate planning problems;

4. To provide working capital to enable farm operations to become more financially stable;

5. To address other personal ownership problems such as age, health, and retirement and;

6. To develop a positive attitude among farmers, agribusinessmen, landowners and urbanites that agriculture in Massachusetts is here to stay and that state government recognizes and supports agriculture's important contributions to the state's economy and rural character.

The Agricultural Preservation Restriction Program is the only means for farmland owners to realize the cash equity in their land and at the same time ensure it will remain open and undeveloped. The value of the Agricultural Preservation Restriction (or development rights) is the difference between the full market value of the land and the land's agricultural value. In return for paying for the APR, the Commonwealth receives a deed restriction, in perpetuity, prohibiting any and all activities detrimental to the land's present or future agricultural potential. This cash payment is an investment in the state's agricultural land resource, which will be repaid time and again through the operation of a viable agricultural ecomony.

Purchasing development rights is a unique method for retaining productive farmland in areas under urban pressure. It is less costly than purchasing the land in fee, and can be more effectively administered than the complicated alternative of transferring development rights. Also, purchasing development rights is more permanent than farmland assessment, zoning or agricultural districting. However, no single method is the sole panacea for the loss of agricultural land. As the degree of urban pres-

sure changes, so does the agricultural land policy package. Typically, in state-wide areas, several programs and methods must interact together to accomplish the goal of farmland retention.

Land Trust Assistance

The Massachusetts APR Program works in many ways. In cases where landowners wish to sell only their development rights, the Commonwealth acts alone; however, if landowners want to sell all their real estate the assistance of a local or regional land trust can be employed. A trust can purchase the whole farm and enter into a purchase agreement in a short time period. Typically, once the development rights have been appraised according to state guidelines, they are approved and purchased by the Department of Food and Agriculture. The residual agricultural value of the land and buildings can then be sold to a farmer. In areas of high land values, some part of the farm offered for sale may lend itself to limited development. This option helps lower the cost of the development rights and still retains the most productive farmland. The assistance of land trusts to the Commonwealth's APR Program has proved to be very worthwhile.

Status of APR Program

In May 1980, the Commonwealth's first agricultural preservation restriction was recorded. The recording of the first restriction meant that the total selection and acquisition process worked and that all state agencies and procedures necessary to complete such acquisitions had been identified and met. The so-called selection/acquisition pipeline had been defined and was fully operational (Table 1). The average time period for completing an acquisition is 12 months.

A summary of agricultural restriction acquisitions by fiscal year is in Table 2. Over the three year period, a total of 42 properties with 3,650 acres have been restricted. The total acquisition cost was $6,800,575 or $1863 per acre. Municipalities and private groups contributed 5 percent of the acquisition monies. The statute enables municipalities to be co-holders of the deed restriction with the Department of Food and Agriculture if they provide assistance that is acceptable to the Agricultural Lands Preservation Committee. Contributions are particularly encouraged in cities and towns where land values are high and where farmland possesses only local importance.

Applications for the program have been received by the Department since January, 1979. Since that time 266 applications have been received. They are located in 12 counties and 134 municipalities. A total of 26,730 acres of land are under application and the owners' asking prices exceed $65 million (Table 3). New applications are continually being received.

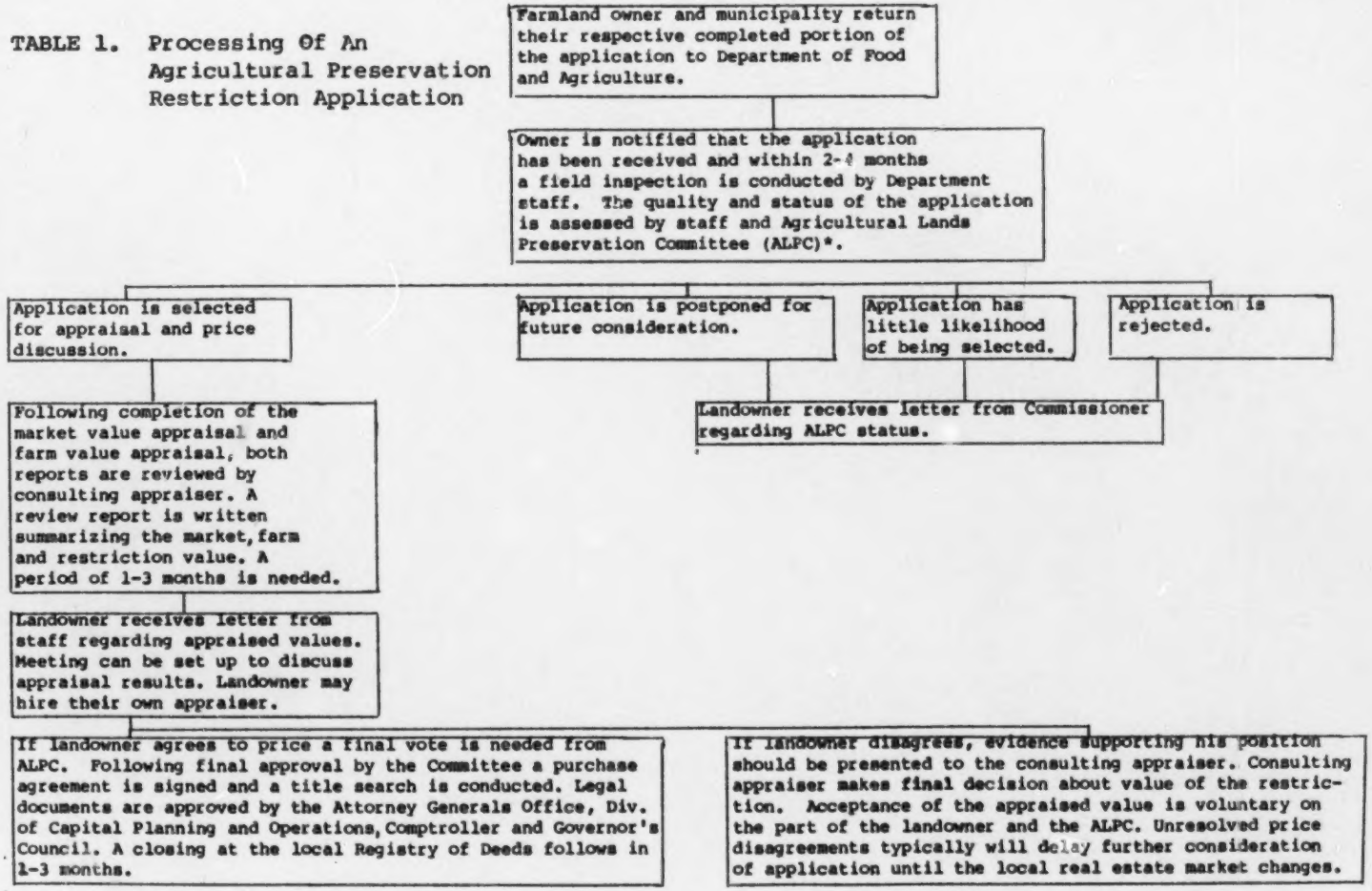
The general status of all applications received as of June 30, 1982 is categorized in Table 4. One of six status categories is available. Status A are those applications that have received payment and the property has been restricted. Payment is pending for Status B applications until a title search has been completed and cooperating state agencies provide their approval.

Applications in categories C and D are under appraisal. If agreement as to value is obtained, then they will proceed to Status B if the Agricultural Lands Preservation Committee approves. As soon as additional funding is received by the program, applications in group E will be nominated for appraisal. Status F applications have been rejected for not meeting minimum program criteria and long run program objectives. Without significant changes, the application would not be reconsidered. Applications in category F are low priority compared to groups A-E. However, over time the application could be selected if land improvements were made or if significant financial contribution was made by local government.

A summary of program expenditures is presented in Table 5. As of June 30, 1982 the APR Program has expended $9,954,451 and committed $8,024,000 to projects under appraisal. It is noted that municipalities have also contributed a sum of $365,457.50. These contributions come close to paying for the administrative costs of the program, which permits the Commonwealth's dollars to be spent almost entirely on restriction purchases.

Purchasing of development rights (restrictions) in Massachusetts is saving key agricultural land for local food production. Many other economic and environmental benefits are being realized. Farmland that otherwise would have been lost to development is now in the hands of younger farmers so that production will continue (Appendix A). Massachusetts taxpayers will have the opportunity to enjoy fresh fruits and vegetables, pick-your-own opportunities, a more varied landscape and the maintenance of agricultural businesses.

TABLE 1. Processing Of An Agricultural Preservation Restriction Application


Farmland owner and municipality return their respective completed portion of the application to Department of Food and Agriculture.
Owner is notified that the application has been received and within 2-4 months a field inspection is conducted by Department staff. The quality and status of the application is assessed by staff and Agricultural Lands Preservation Committee (ALPC)*.
Application is selected for appraisal and price discussion.
Application is postponed for future consideration.
Application has little likelihood of being selected.
Application is rejected.
Following completion of the market value appraisal and farm value appraisal, both reports are reviewed by consulting appraiser. A review report is written summarizing the market, farm and restriction value. A period of 1-3 months is needed.
Landowner receives letter from Commissioner regarding ALPC status.
Landowner receives letter from staff regarding appraised values. Meeting can be set up to discuss appraisal results. Landowner may hire their own appraiser.
If landowner agrees to price a final vote is needed from ALPC. Following final approval by the Committee a purchase agreement is signed and a title search is conducted. Legal documents are approved by the Attorney Generals Office, Div. of Capital Planning and Operations, Comptroller and Governor's Council. A closing at the local Registry of Deeds follows in 1-3 months.
If landowner disagrees, evidence supporting his position should be presented to the consulting appraiser. Consulting appraiser makes final decision about value of the restriction. Acceptance of the appraised value is voluntary on the part of the landowner and the ALPC. Unresolved price disagreements typically will delay further consideration of application until the local real estate market changes.

*Members of Agricultural Lands Preservation Committee as established by statute: Commissioner, Dept. of Food & Agriculture, Secretary of Environmental Affairs, Secretary of Communities & Development, Chairman, Board of Food & Agriculture, four public appointments by Governor, two of whom must be farmers.

Table 2. Summary of Agricultural Preservation Restriction Program Acquisitions By Fiscal Year, 1980-82.

	Fiscal 1980	Fiscal 1981	Fiscal 1982	Total
Acquisitions Completed	2	16	24	42
Number of Acres	97	1431	2122	3650
Acquisition Cost	$280,000.00	$2,776,225.00	$3,744,350.00	$6,800,575.00
Town or Private Contributions	$ 25,500.00	$ 161,372.50	$ 178,585.00	$ 365,457.50
Net Commonwealth Cost	$254,500.00	$2,614,852.50	$3,565,765.00	$6,435,117.50

Table 3. County Location and Number of APR Applications Received as of June 30, 1982

County	Number of Applications	Acreage	Asking Price	Municipalities Represented
Barnstable	3	301	$1.8 Million	3
Berkshire	12	2197	$2.9 Million	7
Bristol	23	1940	$6.7 Million	11
Dukes	4	342	$1.5 Million	3
Essex	32	2821	$13.8 Million	13
Franklin	16	1775	$2.3 Million	7
Hampden	12	1173	$2.1 Million	7
Hampshire	39	4046	$4.1 Million	12
Middlesex	35	2117	$10.9 Million	20
Norfolk	15	702	$2.1 Million	8
Plymouth	24	2708	$5.9 Million	15
Worcester	51	6608	$11.9 Million	28
TOTALS	266	26,730	$66.0 Million	134

Table 4. Status of All Applications Received by APR Program as of June 30, 1982

Status	Number of Applications	Acres	Purchase/Asking Price
A. Acquisition completed and deed restriction recorded.	42	3,650	$ 6,800,573
B. Final vote of approval received and purchase agreement signed.	20	1,955	$ 2,754,175
C. Voted to appraise and negotiate purchase price.	46	4,734	$ 8,024,000
D. Voted to appraise and negotiate purchase price but landowners have refused offer.	16	2,885	$ 3,533,000*
E. Eligible candidates but sufficient funding is currently unavailable.	125	13,024	$ 23,255,000*
F. Rejected for not meeting minimum program criteria and objectives.	17	482	$ 1,779,000*
TOTAL PROJECTS	266	26,730	$ 46,145,748**

*Asking Prices.

**This total differs from the $66 million stated in Table 2 because final appraised values are typically 70-80 percent of asking price. Status D through F involves asking prices while A through C are appraised values. New applications to the program are received every week.

Table 5. Summary of Program Expenditures as of June 30, 1982

Expenditure Item	Expenditure Amount	
Restriction Purchases		
Completed (42 properties)	$6,800,575	
Under Signed Agreement (20 properties)	$2,754,175	
	TOTAL	9,554,750
Administration Costs		
Appraisal Services	$ 315,284	
Farmland Appraisal Study Report	$ 25,750	
Legal Services	$ 54,909	
Supplies and Equipment	$ 3,758	
	TOTAL	399,701
Anticipated Restriction Purchases of applications under appraisal (43 properties)	TOTAL	10,500,000
Anticipated Administration Costs associated with the anticipated restriction purchase	TOTAL	150,000
Pending applications that cannot be appraised unless more funds are allocated	125 properties with asking prices exceeding $23,000,000.	

NOTE: A total of $20,000,000 has been appropriated by the Legislature for the APR Program. As shown above a total of $9,954,451 has been expended for restriction purchases and administration. It is anticipated that the 43 properties presently under appraisal will require approximately $10,500,000 and the associated administration cost of $150,000. The asking price of pending applications totals $23,000,000. Without an additional appropriation, no action can be taken on these applications nor on new applications which continue to be regularly submitted.

DIVISION OF AGRICULTURAL LAND USE
Thomas Storrow, Director

The Division of Land Use works to promote the wise and productive use of Massachusetts' agricultural resources. Through several programs created to encourage preservation and utilization of farmland for agriculture, the Division strives to strengthen the local farm economy and improve the climate for a viable agricultural community.

The most important resource for agriculture is land. Massachusetts' agricultural land base has been shrinking as good farmland is converted to roads, industrial parks and houses. Since 1945, about one and one-half million acres have been lost to urban conversion and abandonment. The Division is attempting to slow this trend on both public and private farmland.

Public Lands

Although farming programs are no longer a part of most state institutions today, there are still thousands of acres of farmland surrounding Massachusetts state hospitals, schools and prisons. When many of the state institutions were built in the late 1800's, they were sited on some of the Commonwealth's best farmland. The institutions raised their own food and large investments were made for drainage and other agricultural improvements. The Division works to make these lands accessible to farmers and gardeners for agricultural uses. This is accomplished by entering into agreements with the controlling state agencies for management of the land, and leasing or lending the parcels to interested parties.

This year, the Division administered leases to six commercial farmers for about 250 acres of state land. In addition, several other state agencies have independent leases with farmers for several hundred more acres.

Two other state programs also promote the productive use of public lands. Through the Community Gardening Program, about 20 community gardens (some as large as 400 individual plots) were sited on state-owned land this year. Through the Massachusetts Fruition Program, several thousand fruit and nut trees and shrubs were planted on public and public-access lands by community groups. (These programs are described in detail later in this Report.)

In addition, the Division is working to ensure the protection of state lands from conversion to non-farm uses through implementation of Executive Order No. 193 which discourages the sale or lease of state-owned agricultural lands for non-agricultural purposes.

Farmland Preservation

The largest of the Division's programs is the Agricultural Preservation Restriction (APR) Program, whereby the state buys the development rights to private farmland. The next section of this report covers the APR Program.

Community Gardening

This year there were over 200 community garden sites across the state, including the 20 on state-owned sites, involving over 10,000 households in home food production. The Division maintains an inventory of garden locations and coordinators, and serves as a clearinghouse of information for these groups. We help to secure land for garden space by negotiating agreements with both public and private land owners.

Mass Seed Program

The Division also runs the Massachusetts Seed Program. This involves sending free and low-cost vegetable seeds to youth, low-income and elderly people, and members of community garden groups. There were over 6,000 participants in this year's Seed Program.

Fruition

The Massachusetts Fruition Program was created in 1980 to promote the growing of food-producing trees, shrubs and vines on publicly-accessible lands. Interested community groups apply to the Division to receive free plants in exchange for an agreement to take care of them.

Plants are distributed in the Spring and Fall at five regional distribution sites to school and church groups, conservation commissions, town tree and parks departments and community garden groups. This year, pears, sour and bush cherries, juneberries, quinces, mulberries and elderberries, apples, blueberries, blackberries, black and red raspberries, black and English walnuts, butternuts and Chinese chestnuts were distributed, bringing the total number of Fruition trees planted throughout the state to almost 7,500.

Environmental Impact Review

By participating in the planning process and monitoring decisions that may affect agricultural lands, the Division tries to prevent further loss or destruction of agricultural resources. We actively participate in the environmental impact review process which is required by the Massachusetts Environmental Policy Act.

New Programs

A primary function of the Division has been to work directly with federal agricultural agencies and local groups to get new programs started and put landowners in contact with other agricultural professionals. This year the staff worked with the Executive Office of Energy Resources to solicit federal funds for energy conservation for small dairies, greenhouses and fruit storage facilities. If these funds are granted, the Division may help to administer a program of loan subsidies for energy conservation measures for these agricultural businesses.

DIVISION OF ANIMAL HEALTH
Mabel A. Owen, Director

The control and eradication of important domestic animal diseases is not only crucial to human health, it is one of the areas of regulatory service which truly benefits both the consumer and the producer. Energy and transportation costs escalate. The practice of good disease control is one of the few profit areas still under the producer-farmer's control. With an administrative staff of eight and a field staff of fourteen Veterinarians and Inspectors, the Division of Animal Health works in close cooperation with the animal owning sector of Agriculture to ensure that the food produced here will provide profit and good health to farmer and consumer alike.

BRUCELLOSIS

Since this bovine-porcine disease readily attacks man in the form of Undulant Fever, its eradication from our cattle and swine herds is imperative. With one relatively small dairy herd still under quarantine and less than six swine herds known to be infected, complete eradication is well within reach. Since Massachusetts is an importing state, with regard to both cattle and swine, it is difficult to keep disease out and we rely extensively on surveillance procedures and widespread testing. All dairy herds are subject to a BRT (Brucellosis Ring Test) every sixty days. All imports are retested and an MCI (Market Cattle Inspection) is conducted at slaughter plants. Brucellosis, once located, can be eradicated through herd depopulation or through a repeated test-and-remove-infected-animals procedure. The former is quick; the latter more costly of time though usually much less of a financial loss to the farmer. Total herd depopulation is the preferred method with swine. Since no state indemnity funds are available, it is imperative that we do our best to keep this disease out of our herds. Federal Uniform Methods and Rules, in effect as of January 1, 1982, classify Massachusetts an "A" state in Brucellosis. We hope to attain "Zero" status within Fiscal Year 1984.

TUBERCULOSIS

In humans, tuberculosis is endemic the world over and has, in recent years, made a resurgence in major United States cities. This has led to increased vigilance against the disease on farms and all cattle (dairy goats) in Massachusetts are tested regularly, although we are fortunate not to have had a reactor in more than two years. Testing and the MCI program will continue; this disease is still very real. During fy 1982, 18,715 cattle were tested, representing close to 85% of our known cattle population.

HOG CHOLERA AND OTHER SWINE DISEASES

The entire country has been free of Hog Cholera during fy 1982 although strong surveillance procedures continue in use. With greatly increasing numbers of tourists and world travellers, the risk of importing disease increases every year. Massachusetts permits the feeding of meat-containing garbage to swine, but requires that it be cooked before feeding. This heat treatment is the main protection we have against the possibility that raw pork, from another country, becomes the means of introducing either Hog Cholera or African Swine Fever.

During fy 1982 two swine herds were found suspect to the presence of PRV (Swine Pseudorabies Virus) and the depopulation of the breeding swine on both premises is under way. Legislation against the importation of swine from other than pseudorabies-free sources will be filed.

EQUINE PROGRAMS

Licensing of Horseback-riding Instructors and Riding Schools or Stables continues to be well-received. The former program, consumer protective in intent, has received considerable attention from neighboring states contemplating a similar program. Approximately 800 persons hold the Instructor License. The majority work as Coaches, but most of the A-Level (Advanced) licenses are held by owner/operators of sizeable Riding Academies. The quality of Riding instruction available in Massachusetts is very high. Much is due to the presence here of the United States Olympic Team, but no small part results from the licensing program and the solid floor it puts under the sport of riding. Rules and Regulations under the law requiring the licensing of Horse Auctions and Transporters were promulgated in fy 1982 and actual licensing is expected to be in operation in early 1983.

Ten thousand nine hundred sixty-one equines were tested for Equine Infectious Anemia (The Coggins Test) in fy 1982, twelve of which were positive. As in past years, almost all of the positives were found through the testing program conducted at a large sale barn in Massachusetts. The presence of acute EIA in both Vermont and New Hampshire underlines the necessity of keeping this program in place. Permission for Massachusetts-owned equines to attend Massachusetts Shows and Fairs with a negative Coggins Test dated within 24 months prior to show date was granted as of January 1, 1981 and appears to be working well. It results in some saving to Massachusetts horse owners and appears to have had, and be having, no negative impact on the EIA-control program.

Although vaccination against Equine Encephalitis (EEE-WEE) is not mandatory, the Division of Animal Health issues a public notice each spring, urging horse and pony owners to have their animals vaccinated. Considered 100% effective, the widespread use of this vaccination is very probably responsible for the fact that no equine deaths from this disease have been reported over the last three fiscal years. Once again, the Chief Veterinary Health Officer, Dr. Victor P. LaBranche, emphasizes that human beings cannot contract this disease from horses and ponies. The term "Equine" in its name indicates only that equines, as well as humans, may contract the disease which is transmitted to them from domestic or wild birds by mosquitoes.

A more extensive program to drug-test pulling animals (horses, ponies or oxen) at Fairs was inaugurated in fy 1982. Testing for the presence of illegal stimulants was conducted at the Massachusetts Racing Commission Laboratory and all tests were negative. This program has been exceptionally well received by all people who compete in these popular fair events.

PET SHOP LICENSING

Pet Shop licensing is conducted mainly as a disease-prevention and trace-back procedure. During fy 1982, as in several previous years, illegally imported psittacine birds (parrots) caused sporadic outbreaks of Velogenic Visceratropic Disease (VVND) in several areas of the country. Complete traceback of exposed birds was possible in Massachusetts, largely

due to the excellence of the record keeping in the licensed Pet Shops where most of such birds are sold. This ability to trace every exposed bird is of the utmost importance in the prevention here of a disease which easily has the capability of wiping out the poultry industry.

GUARD DOG BUSINESS LICENSING

A law requiring the licensing of guard dog businesses was passed late in fy 1982. Rules and Regulations for this have been proposed and hearings are scheduled in fy 1983. As with Pet Shops and Riding Stables, the Guard Dog business premises will be inspected by agents of the Massachusetts Society for the Prevention of Cruelty to Animals and the Animal Rescue League of Boston.

POULTRY PROGRAM

With severely depleted field personnel in the poultry division, much of the work load had to be prioritized. As a result, disease blood-testing was completed at the expense of store inspections, which are done to check the weight and quality of all eggs being sold and ensure proper adherence to the quality control mandated by the use of the "Massachusetts Grown and Fresher" logo. The two Poultry Inspectors hired in the last month of fy 1982 strengthened the store inspections and resulted in an immediate rise in both the number of stores visited and the quality of the products offered. Since Massachusetts exports a high number of carefully-bred chicks each year, (1.6 million in fy 1982), blood-testing and disease freedom in the breeder flocks is extremely important to the state's agricultural economy. With the Division at full strength for the first time in two years we expect to be able to maintain our present high calibre of disease freedom and also show an improvement in the amount and quality of the store egg inspection.

RABIES CONTROL

Under this program we initiate the quarantining of any animal which has bitten a person. With rabies recently confirmed in ground animals in Massachusetts for the first time in many years, we have noted a greatly increased public and media interest in this disease as well as animal vaccinations against it.

IN CONCLUSION

The goal of this Division is good health, especially in the areas where human health is also involved, directly or indirectly. That we have had success in the total control of or eradication of some very important diseases is due primarily to the effort and dedication of all Division of Animal Health employees, both administrative and professional. We are also indebted to the excellent cooperation this office has always had from the Massachusetts' farming community, agents of the MSPCA, our federal counterparts at USDA-APHIS, the University of Massachusetts at Amherst and the Massachusetts Farm Bureau Federation. We have also had invaluable support from within the Department of Food and Agriculture, the Secretary of Environmental Affairs, the Legislature and the Executive Office of the Commonwealth. We are deeply appreciative for the help each has offered and feel the state's present status, in animal health, reflects this joint effort.

The budget appropriated for the Division for FY 1982 was $458,197.

There were several bills filed in the Legislature in 1981 affecting the agricultural industry as well as the Department.

Chapter 59. An Act relative to brucellosis in bovine animals. April 3rd, with emergency preamble.

This bill authorizes the Director of Animal Health to prohibit the importation of female cattle over five months of age and for breeding purposes, without an official certification of vaccination.

Chapter 257. An Act further regulating the employment of minors. June 18th.

This Act authorizes the employment of minors 16 years of age or older, provided that such minors are enrolled in a course of study and training in a cooperative vocational training program, including cooperative agricultural programs.

Chapter 302. An Act relative to mosquito control by cities and towns in mosquito control districts, July 2nd.

Clause 36C of said Section 5 was inserted into the law and provides that a city or town within a mosquito control district may appropriate further money for the abatement of mosquitos, but that the program shall be under the supervision and control of the mosquito control project of which such city or town is a member.

Chapter 351. Budget of the Commonwealth FY 1982, July 21.

Most of the amendments affecting agriculture in calendar year 1981 will be found in the outside sections of the Appropriations Act.

Chapter 351 had a record breaking 295 outside sections. Most of them created new laws. The General Court has since banned the practice of creating new laws in any future Appropriations Act.

Section 254 of this Act, through Section 269, reorganizes the Department. Section 254 sets up new Divisions and Bureaus within the Department by amending Section 6 of Chapter 128.

The other sections, 255 through 269, change the wording in the various laws so as to conform with the amendment to Section 6.

There are errors and omissions which we are trying to rectify.

Chapter 363. An Act authorizing the town of Monterey to withdraw from the Berkshire County Mosquito Control Project.

Chapter 554. An Act authorizing the Hampshire, Franklin, Hampden Agricultural Society to hold a ten day horse racing meeting.

Chapter 558. An Act further regulating racing days in the Commonwealth. Approved Nov. 18. Effective Nov. 19.

The bill, among other things, amends paragraph (g) of Section 2 of Chapter 128 of the General Laws. It rewrote the entire paragraph which deals with the Massachusetts Thoroughbred Breeding Program. It also authorized the Department to establish rules and regulations affecting the program.

Chapter 701. An Act relative to the retirement rights of persons employed by the County Cooperative Extension Service in Suffolk County. December 24.

BUREAU OF DAIRYING

Arthur W. Hoyt, Chief

All fluid milk sold in Massachusetts, and all milk handled by milk and pasteurization plants licensed by Massachusetts, must come from dairy farms that are licensed by the Commissioner of the Department of Food & Agriculture. The inspection work is carried out by the Bureau of Dairying. The geographical area covered is all of New England plus a gradual westward expansion from eastern through central New York state.

In the year ending June 30, 1982, Bureau personnel made 8,103 dairy farm inspections and 1,928 reinspections. Those farms that still did not conform to Massachusetts laws and regulations were processed through our exclusionary procedure, which resulted in thirty-four Department Hearings and the subsequent exclusion of thirteen dairy farms from Massachusetts markets. Other non-conforming farms either shifted markets or went out of business.

The mastitis sample collecting program, which is operated in conjunction with the diagnostic laboratory at the University of Massachusetts in Amherst, used four inspectors full time, and they sampled 641 herds, 3,511 cows and delivered 138,352 samples to the laboratory. These samples were analyzed and the results forwarded to the herd owner and his veterinarian. Implementation of appropriate control measures by producers results in better quality and increased production.

Inspection and grading work performed for U.S.D.A. through a cooperative agreement was continued, but on a reduced schedule due to our manpower shortage. Sampling of original vendor lots of dry skimmed milk, manufactured by Massachusetts companies for purchase by U.S.D.A., is continuing. Also, inspection surveys of manufacturing facilities for U.S.D.A. license continue to be carried out. The sampling of U.S.D.A. dry skimmed milk powder already in storage at locations in Lawrence, Lowell and Chicopee has been discontinued because of manpower requirements. Income from grading and sampling work performed in the fiscal year is $6,829.00

The Bureau inspected 79 milk plants for licensing this year. Of these 79 plants, 24 were out of state pasteurization plants whose products were sold within the state.

Bureau personnel certified by the United States Public Health Service as Milk Sanitation Rating Officers completed all Massachusetts dairy industry requests for Interstate Milk Shipper raw milk sanitation and enforcement ratings.

DIVISION OF FAIRS
Stephen F. Quinn, Director

In spite of cold, rainy and raw days--probably the worst fall weather in some years--our fairs managed to break records in attendance and exhibits.

This is not only the first year we recorded over 3,000,000 patrons visiting one of the agricultural fairs within the state, but the total attendance of 4,160,643 is an all time high and is an increase of 25 percent over last year.

A total of $315,168 were expended for prizes by the state and $136,770 were added by the fair societies themselves for the promotion of agriculture. Exhibits displayed numbered 88,522 and 38,206 were exhibits planned by youth or youth groups.

The Massachusetts Building exhibits at the Eastern States Exhibition in West Springfield enjoyed a tremendous reception in spite of the fact that the weather was poor on seven out of the twelve days. Nevertheless, 1,016,051 patrons, down 73,949 from the previous year, came to see the exhibits and spend enough money to make the fair the most profitable of all times.

New exhibits included a few manufacturing companies who process within the state and utilize our raw agricultural products. They were the Oxford Pickle Company, Friendly Ice Cream, and Carando Meats. The fairgoers truly enjoyed a sample of their products. The Soil Conservation Service did a great job with an exhibit on soil erosion and measures to prevent it.

Ten part-time fair inspectors were employed again this year to help aid the Division in its monitoring of the agriculture prizes and the use of rehabilitation monies.

The rehabilitation committee met in Ashland at the 4-H Center in December and approved $80,500 from request of $361,085, from 49 fairs.

The wool blanket program established during the previous year received national recognition as a great direct marketing approach in assisting the wool industry.

Growers who took part in the program received $1.25 per pound for their wool as opposed to those who sold directly into the New England pool, who received only 78 cents per pound. Over twelve hundred blankets were manufactured and sold to obtain this goal. This year we expect to manufacture over two thousand blankets with the raw price of wool at forty cents per pound. Nationally there is a great need to further promote the concept of this program.

The total appropriated budget for the fiscal year was $759,613. Of this total $472,113 were appropriated for the fair prize awards, fair inspections, promotional programs, and administration costs; $87,500 were appropriated for the rehabilitation program to help assist with the upkeep at the fair grounds; $200,000 for the Thoroughbred and Standardbred programs. With the enactment of Chapter 558 of the Acts of 1981 further promoting the equine industry in the State, three new accounts were set up within the Division and were funded through a supplementary budget. The Thoroughbred Program received $220,000; The Standard-Bred Program received $152,031 and the Tufts School of Veterinary Medicine received $65,657 for equine research, scholarships and loans.

THOROUGHBRED HORSE PROGRAM
Pete Bundy, Supervisor

The Massachusetts Thoroughbred Breeding Program was greatly enlarged in November of 1981 with the passage of Chapter 558 of the General Laws of 1981.

Previously, the program was strictly a breeder and stallion incentive award program. Cash prizes of 20% of purse monies won were awarded to breeders of winning thoroughbred horses. An additional 5% of purse monies won was awarded to the owner of the registered Massachusetts Thoroughbred stallion which sired the winner. These purse monies had to be won at Massachusetts thoroughbred race tracks.

With passage of the new legislation, the breeder awards have been increased to 25%, and stallion owners' awards to 15% of 1st, 2nd, and 3rd place purse monies won. Also, an owners' award of 5% of purses won has been established. The new law also provides for funding of purse monies for stakes races restricted to Massachusetts bred Thoroughbred horses.

Obviously, the intent of this legislation is to promote the breeding of Thoroughbred horses in the Commonwealth, and to encourage "horse-farming" and the preservation of agricultural land in Massachusetts.

The Thoroughbred Breeding Program is now funded from 80% of one-Quarter of one percent of the total handle at Suffolk Downs. The remaining 20% of one-Quarter of one percent is used to help fund equine research and scholarships at Tufts School of Veterinary Medicine. These monies are subject to appropriation by the Massachusetts legislature.

Another step in enhancing Thoroughbred Breeding in the State was the funding of the Massachusetts Thoroughbred Breeders Association in 1981. This group has been working with our Department of Food and Agriculture, and has been most helpful in promoting Thoroughbred breeding in Massachusetts.

As a result of the new program, several new Thoroughbred stallions have been brought to Massachusetts to stand at stud. Most of these stallions have excellent bloodlines, and mare owners in the state will be anxious to breed to them. New breeders are registering foals, and the Thoroughbred census in the state appears to have nearly doubled, though it is too early in the program to estimate an accurate picture of the census three or four years hence.

In the fiscal year July 1st, 1981-June 30, 1982, breeder, owner, and stallion awards amounted to $222,814.25 for Massachusetts-bred thoroughbreds racing at Suffolk Downs and three agricultural fairs. In this period, Massachusetts-bred went postward 1,179 times accounting for 139 wins, 169 2nds, and 136 thirds.

STANDARDBRED PROGRAM
Barbara E. Dolloff, Supervisor

The Standardbred Horse Breeding Program encourages and promotes the breeding, propagation, ownership, raising, racing and marketing of Standardbred horses bred in the Commonwealth of Massachusetts. Thus it encourges the keeping of open lands to promote agriculture and agricultural related industries within the Commonwealth.

Fiscal 1982 brought many positive changes to the program with the enactment of Chapter 558, Acts of 1981 of the General Laws. Monies for this program will now be derived from ½ of 1% of the total handle at harness tracks located within the Commonwealth. This money is taken from the 3% tax on wagering that is paid daily by the track to the Commonwealth.

The horsemen have responded to the new legislation by investing heavily in new farms, building and repairing of barns, purchasing farm machinery and the breeding and buying of Massachusetts bred standardbred horses.

Ther are 49.4% more acres being utilized by stallions in this program since passage of Chapter 558. Stallion registration has increased by 60% and yearling registration is up by 43%. Though the breeding reports for this period have not been received as of this writing, an unofficial survey indicates a 120% growth.

Appropriation for fiscal year 1982 was $100,000.00. Total expenditures for the program were $99,921.52; $83,023.00 of this was used for purses and $2,248.52 for promotional expenses.

DIVISION OF MARKETS
John J. Fitzgerald, Director

The Division of Markets functions as a regulatory and a marketing agency in the Department of Food and Agriculture.

The Promotional and Information Section, supervised by Assistant Director Guy L. Paris, is involved in various activities such as commodity promotions, which are conducted with the cooperation of commodity groups.

In fiscal year 1982, promotional funds which were shared equally with commodity groups were eliminated from the budget. Many of the programs which were administered during the past ten years ceased.

It is now promising that fiscal year 1983 will bring new funds and the commodity promotional programs will resume.

With limited funds, the Division continued and expanded the "Massachusetts Grown and Fresher" trademark program. Many retail outlets used this logo in their weekly newspaper ads. Massachusetts agricultural products are also promoted through the publication of pamphlets listing local "Pick-your-Own" vegetables, strawberries, blueberries, apples and other fruits, "Cut-your-Own" Christmas trees, fresh Massachusetts turkeys, and locations of Farmers and Gardeners markets.

This section has been very active this year in developing sales contacts for large food market product buyers.

It also cooperates with U.S. Department of Agriculture Market News Service in collecting, publishing and distributing by telephone, mail, radio and newspapers timely information on market prices, supplies, and demand of fresh fruit and vegetables at the Boston Market and at the Springfield Market.

Prices and other information related to marketing of ornamental crops at the Boston Flower Exchange are compiled and published in the same manner as those of fresh fruits and vegetables.

It is through these reports that growers, retailers and shippers are informed of marketing conditions and prices.

Other marketing information released by this section includes weekly Special Apple Reports and a weekly Food Buyers Guide.

Milk flavoring program provides an organoleptic evaluation service for the milk industry with the objective of guaranteeing consumer satisfaction with the flavor quality of milk they purchase. Samples taken from milk plants and milk producers range from 5 to 250 per examination with the average monthly total including 50 finished products, 90 blended tank shipment and 755 farm samples.

The budget appropriated for the Division for fiscal year 1982 was $295,100.00.

PUBLIC INFORMATION - Janet Christensen

In a state where the vast majority of residents do not live in the midst of a farming community, the public information program helps "build a constituency" for local agriculture as well as advise farmers about Departmental programs.

The better informed the public is about the current farm situation and the industry, the greater the likelihood of understanding and support for the various activities aimed toward boosting local agricultural production.

In an urban state such as Massachusetts, for example, protecting farmland from commercial development is essential and related efforts such as the Agricultural Preservation Restriction Program can benefit from wide public exposure.

News releases and publications of the Department also aim to increase the demand for local farm products so that farmers will be encouraged to grow more, not less. Information about what's in season and where it's available is offered to food editors, radio and TV stations. Also, a series of brochures about local crops, their nutritional value and uses has been widely distributed to the press and at roadside farm stands and farmers markets across the state.

Other topics covered in news releases include community gardening, fairs and various Departmental activities and agricultural events. This year the Pesticide Bureau of the Department initiated a "Pesticide Information Center" and the public information office has cooperated with the Bureau in its effort to better inform the public about all aspects of pesticides and current issues such as gypsy moths, mosquito control and the use of herbicides on rights-of-way.

This office also coordinated press activities for the National Association of State Departments of Agriculture during its 1981 annual fall meeting in Boston and hosted the concurrent annual meeting of the Communications Officers of State Departments of Agriculture.

Credit is due to the outstanding assistance offered through student internships from Simmons College, Framingham State College and the University of Massachusetts at Amherst. The enthusiastic help of several students from these schools this past year was indispensable to the completion of a wide variety of public information projects.

Farmers markets continued to be one of the media's favorite agricultural topics. This year the listing of markets across the state tallied to a total of forty-six, a significant growth from the 1976 listing of seven locations. The public information officer serves on the board of the Massachusetts Federation of Farmers Markets and assists in the publication of the Federation newsletter.

Direct marketing grants, made possible by funding to the state from the U.S. Department of Agriculture, were also publicized by this office. Awarded during a visit to Massachusetts by U.S. Secretary of Agriculture John R. Block, the grants were made to "foster innovations in increasing the marketing of farm products directly from farmers to local institutions, supermarkets, grocery stores and other retail outlets". The matching grants totaling $40,000 were made to twelve local businesses and associations.

ROADSIDE MARKETING - Craig Richov

To keep Massachusetts a leader in direct marketing, farm marketers in the Commonwealth are offered the consulting services of the Department's Roadside Marketing Specialist. The Specialist visited over 200 farms this year, and his recommendations to grower-retailers are intended to further upgrade the appearance, image and success of the the $30 million plus roadside marketing industry. His monthly Newsletter informs growers of current marketing trends and retailing techniques and successes. Plans for new roadside markets were provided in Lakeville, Westport and Northboro, and improved market layouts were recommended for over 20 stands across the state. The Specialist also held a marketing seminar and market tour during the New England Vegetable Growers Conference in December.

Promotional activities of the marketing specialist include the distribution of "Massachusetts Grown and Fresher" promotional materials and participation with the Massachusetts Vegetable Growers Association Marketing and Promotion Committee. A fall harvest display and information booth promoted Massachusetts products at the Massachusetts Building at the Eastern States Exposition in West Springfield and provided fair goers with information on roadside stands, farmers markets and pick-your-own operations. As chairman of the Massachusetts Federation of Farmers and Gardeners Markets promotion and exhibits committee, the Roadside Marketing Specialist has promoted farmers markets through informative exhibits and actual live farmers markets at the Eastern States Exposition and smaller fairs and functions throughout the year.

FOREIGN TRADE SECTION - Dr. Schiva Gandhi

In this fiscal year, the economic trends of the day have had a tremendous impact on the Massachusetts agribusiness firms participating in the export programs of the Division of Markets. European community processing subsidies, a strong U.S. dollar and the economic recession in Europe have served to reduce U.S. exports to the European community. Lesser developed countries strapped for foreign exchange have been concentrating on importing only "essential and necessary commodities". Faced with these harsh realities and eager to tap all potential world markets, the hundred or so Massachusetts firms (new-to-export or experienced exporters) have been actively utlizing the services and resources of the Foreign Trade Section. Thus there has been a marked increase in inquiries on agricultural statistics, latest developments in foreign markets and other information relating to foreign trade.

An interested producer, who has a good quality product that is selling well in the domestic market, and has a definite interest in market expansion, has been encouraged to try the export markets. These companies, as well as established exporters, are developing a large number of sales from TORS (Trade Opportunity Referral Service) contacts, as well as Export Briefs. Increasing numbers of Massachusetts firms are introducing their food and agricultural products to foreign markets through the FAS publication CONTACTS, which is translated into various languages and distributed worldwide. Buyers in foreign countries are in turn contacting Massachusetts exporters, listed in each publication, for possible purchases.

Cabled sales leads for various food and agricultural products received from buyers throughout the world are frequently channeled via EUSAFEC (Eastern U.S. Agricultural and Food Export Council, Inc.) representatives and USDA Export Service Division to the Foreign Trade Section. These sales leads are in turn disseminated through this office to various producers and exporters of agricultural food products in the State for further action.

Trade delegations and foreign buyers visiting Massachusetts often contact the Foreign Trade Section. This section, in conjunction with other agencies, informs the producers and exporters of such visits and provides liason service between buyers and sellers, as well as acquainting them with the products available from the State of Massachusetts.

EUSAFEC program committee meetings are regularly attended throughout the year. At these meetings the members formulate policies to be adopted and initiatives to be taken to increase the exports of food and other agricultural products.

This year EUSAFEC sponsored the first U.S. International Food Show which took place in the New York Coliseum. The general concensus is that the show was an outstanding success and the vast majority of exhibitors are looking forward to the next show. Representatives of food manufacturing companies and processors as well as official organizations in all sectors of the food and drink industry are always eager to receive information on the upcoming food and agricultural expositions, for it provides them with an ideal opportunity to introduce new products, identify new markets and new trends in food processing, as well as boost sales in national and international markets.

The Foreign Trade Section is currently concentrating on disseminating information on the NASDA National Food & Agricultural Exposition to take place at the World Congress Center, Atlanta, Georgia on May 17-19, 1983. The first national food show ever to be held in the U.S., the Exposition is sponsored jointly by the National Association of State Departments of Agriculture (NASDA) and the Foreign Agricultural Service of the USDA. For three days, Atlanta's World Congress Center will be an international marketplace, where buyers, suppliers and brokers will examine, compare and discuss the most comprehensive range of fresh, frozen and processed food, beverages and wines ever assembled under one roof.

Among our many regulatory services, of major importance is the Federal-State Inspection Service. For 63 continuous years all state agriculture departments in the nation have cooperated with the U.S.D.A. in providing shipping point fruit and vegetable inspections for their own states' farm products.

This inspection service is offered to any financially interested parties within the Commonwealth on a fee basis and thus the program becomes self-sustaining. All fees are retained by the Commonwealth except for a very small administrative cost retained by the U.S.D.A.

For many years this Inspection Service in Massachusetts, through strict adherence to grades and other essential data, has done much to upgrade the quality, condition and grade of the final product. Massachusetts leads the world in the production of cranberries and many shipments of this product carry a Federal-State certificate.

By law all apples must be inspected for export and our inspection service has been instrumental in helping Bay State farmers maintain this lucrative market. The inspection service has aided in developing new methods of transportation, especially in the export field.

The greatest demand for our inspection service again has been on the shipment of export apples, mainly to the United Kingdom. Apples are also inspected for shipment to California where the demand has been increasing each year, and for military purchases.

The export apple inspection is of major importance, due primarily to the demand and acceptance of controlled atmosphere stored apples, our valuable McIntosh variety and our quality packs. McIntosh apples cannot be grown successfully in European countries. The controlled atmosphere method of storing apples greatly lengthens the marketing season and allows shipment of apples in good condition well into June, thus providing a more orderly marketing season for the entire apple indusry.

Shipping point inspections are also made in wholesale lots of potatoes, onions and cranberries and apples are inspected at a major processing plant.

The revenue generated by this service is in direct proportion to the size of the agricultural crop and since our apple harvest was severely restricted due to the whims of nature, the total inspection revenue was reduced over last season.

Inspections are also made and samples drawn at wholesale markets and retail stores in order to insure the correct and honest labeling and grading of apples, potatoes, agriculture seed, vegetable, flower, lawn seed, animal feed, pet food, specialty fertilizer, agricultural fertilizers and limestone.

All of these various farm products are registerd on an annual or semi-annual basis, and proper fees, penalties and taxes are collected.

Calendar Year*

The program requires close cooperation with other state agencies and the U.S. Dept. of Agriculture and the Food & Drug Administration.

The program also includes a control on the "Native Law", controlled atmosphere apple storage rooms, cider mills and roadside stands.

SEED INSPECTION PROGRAM/OFFICIAL TESTED

	1978	1979	1980	1981
Agriculture	62	37	54	61
Mixtures (lawn)	86	103	100	57
Vegetables	477	528	445	507
Flowers	206	132	173	215
	831	800	772	840

15 stop sale orders covering 58 lots on 556 packages of seed removed from sale - poor germination, noxious weeds, unfit for seeding, out of date test.

FRUIT & VEGETABLE INSPECTION REVENUE

	1978	1979	1980	1981
Apples	$10,061.74	$16,090.07	$11,084.50	$6,012.06
Cranberries	----	577.00	----	220.00
Onions	2,979.96	1,741.96	219.10	32.00
Potatoes	3,251.25	4,411.57	826.68	157.50
	$16,292.95	$22,820.60	$12,130.28	$6,421.56

FEED, FERTILIZER AND LIME REGISTRATION

	1978	1979	1980	1981
Feed/a	2,008	2,014	1,922	1,857
Fertilizer/b	697	799	732	729
Fertilizer/c	14	14	12	12
Lime	29	24	31	31

FEED, FERTILIZER AND LIME REVENUE

	1978	1979	1980	1981
Feed/a	$51,900.00	$50,350.00	$48,050.00	$46,425.00
Fertilizer/b	18,200.00	20,125.00	18,300.00	18,225.00
Fertilizer/c	1,750.00	1,750.00	1,500.00	1,500.00
Lime/d	725.00	600.00	775.00	775.00
Fertilizer/e	8,849.90	10,826.73	15,722.29	12,952.31
Fertilizer/f	2,197.10	1,348.81	3,929.57	2,760.54
Total	$83,422.00	$85,000.54	$88,276.86	$85,398.16

/a Brands
/b Specialty brands
/c Commercial plants
/d Brands
/e Tonnage
/f Penalties

*Registrations and revenue are collected on a calendar year.

Revenue generated by inspection and registration fees totaled $91,819.72

The Division closed its first operational year under a streamlined Departmental reorganization which welded State Milk Control operations into a new Division of Regulatory Services.

The Division continued to fulfill its assigned functions in requiring compliance with state laws aimed at preventing disruptions in milk markets. One of the largest fluid milk handlers in the Commonwealth has filed for bankruptcy for the second time. This unfortunate occurrence has tested the resources of the staff while causing financial harm to the dairy producers involved. New markets have been secured and the Division continues to involve itself with the cooperation and assignment of the United States court in a final resolution.

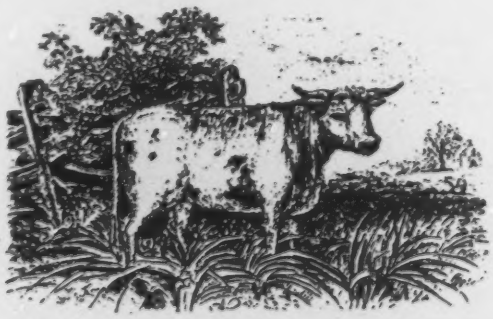
The Bureau of Milk Marketing has assumed the bonding responsibilities of the Department of Food & Agriculture under Chapter 94 Section 94A. Using revised monitoring procedures, the bonding requirements of individuals are being reviewed on an on-going basis and additional bond is being required in response to shifts in market conditions.

Field accounting responsibilities of the Bureau of Milk Marketing will substantially increase in the forthcoming year. As mandated by Congress, the Commodity Credit Corporation, commencing December 1, 1982 will demand a strict deduction of 50¢ for hundredweight of all milk marketed by Massachusetts producers.

During the fiscal year licensing of all milk dealers at wholesale and retail was drastically improved by implementation of the new data processing system established in the Department to give information at the press of a button while reducing clerical workload.

All listings, mailing and questionaires were interfaced and 4100 applications were processed using the new system.

The Bureau of Milk Marketing notes with warm approval the farsighted efforts of Massachusetts producers who this year, by voluntary deduction through dealers or co-operative associations, increased their contribution to Milk Promotion Services, Inc. from $361,800 to $424,209 or a hefty increase of $62,409. The "take-out" was increased from 8½¢ per hundredweight of milk shipped by the dairy farmer to 11¢ per hundredweight of the milk shipped.



PESTICIDE PROGRAM
Lewis F. Wells, Jr., Program Supervisor

The fiscal year 1981-82 saw significant progress within the pesticide program. The activities concerning the regulation of pesticides in Massachusetts are carried out under authority granted by Chapter 132B of the General Laws. Control of the use and application of pesticides is vested in the Department of Food & Agriculture.

One of the significant steps instituted during the fiscal year was the establishment of a Pesticide Information Center. Increased public concern about such issues as Gypsy Moth infestation, mosquito control, and the use of herbicides on rights-of-way has prompted this new service.

The center maintains a resource library to provide for the release of information to industry and government agencies as well as to the public and the press. The center has already prepared and made available an information bulletin entitled "A Homeowners Guide to the Safe and Proper Use of Pesticides", a bimonthly bulletin listing enforcement and registrative actions,as well as several advisory statements directed toward applicators.

The number of enforcement activities continued to increase in line with the comprehensive pesticide regulatory scheme set forth in Chapter 132B of the General Laws. Enforcement activities included inspecting the more than 100 pesticide manufacturing plants, routine inspections of pesticide dealers and applicators, and also hundreds of responses to consumer complaints concerning pesticides.

During the period from July 1, 1981 through June 30, 1982, the Pesticide Bureau received 92 complaints concerning pesticide use or pesticide products. The result of these investigations has been the issuance of 39 Administrative Orders, and the suspension of an Applicator's license. Investigations other than those initiated by consumer complaints resulted in the issuance of an additional 34 administrative orders. During FY82, a total of 9 new cases were referred to the Attorney General's office. Strict enforcement of the pesticide regulations will continue to be top priority with this program.

During this fiscal year, an effort was made to upgrade many of the pesticide exams in order to keep up with label changes and to provide the highest possible level of testing. Also more than 70 re-certification training courses were offered, in cooperation with the Cooperative Extension Service and private industry, to ensure that certified applicators meet the requirements of changing technology and to help applicators maintain a continuing ability to use pesticides safely.

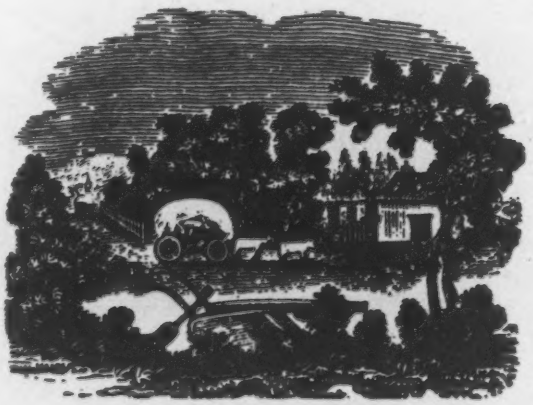
The listing below indicates that in all levels of licensing, more tests were administered and more persons issued licenses than in the previous fiscal year.

	FY'81	FY'82
Applicators license	577	910
Certification (private & commercial)	3,649	3,789
Dealers	115	129

It is interesting to note that since testing under the current program began, over 11,000 people have taken the pesticide exams.

Pesticide monitoring is another tool currently being used to aid the program in enforcing the laws and regulations. During this fiscal year, several locations in the state were monitored during aerial spraying of the Gyspy Moth and in relation to herbicide applications to rights-of-way.

The FY82 budget for the Division of Regulatory Services included an amount of $84,295.



PLANT PEST CONTROL DIVISION
Peter C. Kuzmiski, Director

The defoliation of over two million acres of woodland and ornamental trees in this state by the Gypsy Moth was of major concern this year. During the previous year, this pest caused defoliation to over nine hundred thousand acres. One can see that 1981 was a banner year for this pest.

The magnitude of this problem in the Northeast may well be shown by a few pertinent facts which can help to show this situation in proper perspective. Defoliated acreage in 1981 exceeded the cumulative total for the previous eight years. The 1981 acreage also represents 31% of the total defoliation which occurred in the 57 years since 1924 when compiling records began. Also, the combined defoliation for 1980 and 1981 represents 41% of the total recorded.

From these facts it is evident that it will be difficult to deal with this pest not only in the Northeast but nationwide as well, if Gypsy Moth populations continue to build up in the infested areas and continue to advance to the South and West.

Some control measures for this pest were carried out here by private and municipal agencies with varying degrees of success. State and Federal controls were quite limited due to budget constraints and opposition to chemical controls.

In our annual inspection of nurseries throughout the state it was noted that the Gypsy Moth was not too serious a pest, although some damage was done to young evergreen plantations growing adjacent to heavily infested wooded areas. The regularly scheduled pest controls practiced by our nurserymen managed to keep damage to their plants by this pest to a minimum.

Trapping and surveys were continued for presence of the Gypsy Moth, European Chafer and Red Stele disease of strawberry plants. No new finds of the European Chafer or Red Stele disease were recorded, and the Gypsy Moth survey was confined to the nurseries and lands abutting the nurseries.

Inspections and certifications were made to allow the shipping of plants and seed into other states and countries. Plants growing here from foreign countries were examined and grown under quarantine as required under the federal postentry plant quarantine.

In our public information activities many inquiries were received relative to numerous phases of agriculture and horticulture. Information was disseminated via telephone, correspondence, personal visits and news media. Participation in weekly and monthly radio programs by the Division personnel was continued this year.

Inspection of honey bees continued this year with emphasis on colonies located in Worcester, Norfolk, Plymouth, Hampshire and Hampden counties. Incidence of the foul brood diseases averaged from 3 to 4% depending upon the geographical locations of the colonies. Honey flow was poor at the start of the season due to drought conditions; however, the flow was good after the fruit bloom in May.

Over 3500 bees were collected and sent to the federal bee laboratory to be examined for mites as part of a bee mite survey. None of our specimens were found to be infested with bee mites.

The use of an encapsulated pesticide "Pencap-M" by some farmers and orchidists caused severe damage to honey bees this year. Emergency regulations by our Pesticide Board restricting the use of this material no doubt may be invoked next year.

An estimated number of colonies of honey bees in this state is about 15,000. Each year we manage to inspect at least one half of this total.

The following is a summary of the Division's activities for the fiscal year 1982

NURSERY INSPECTION

No. Nurseries Inspected - 330

No. Greenhouses Inspected - 52

No. Agents Licensed - 325

EXPORT CERTIFICATION

Federal No. plant exports - 107

Federal No. log exports - 80

Federal No. apple exports - 200 (200,000 bu.)

State No. plant exports - 268

State No. Tree & shrub seed - 503

Total certificates issued - 1158

POSTENTRY QUARANTINE

30 sites growing stock from foreign countries this year.

RIBES (CURRANT AND GOOSEBERRY) CONTROL-AREA PERMITS

44 permits to applicants issued permitting the planting of Ribes in non-prohibited planting sites.

GYPSY MOTH

Acres defoliated 1980 - 907,075

Acres defoliated 1981 - 2,826,095

BROWN-TAIL MOTH

A few small infestations of this pest still found in areas of Cape Cod.

PLANT PEST SURVEYS

No new finds resulting from surveys for presence of the European Chafer, Gypsy Moth, and Red Stele disease of strawberry plants.

U.S. DEPARTMENT OF AGRICULTURE - APHIS CO-OPERATIVE PROGRAMS

Programs included Japanese Beetle, Gypsy Moth, Black Stem Rust, and Pest Detection activities. One state collaborator terminated services with the federal agency this year.

FINANCIAL REPORT

The budget appropriated for the Division for this fiscal year was $103,427.

MASSACHUSETTS DEPARTMENT OF FOOD AND AGRICULTURE - APIARY INSPECTION

ANNUAL STATISTICAL REPORT

SEASON 1982

COUNTY	NO. COLONY EXAMINED		NO. COLONY OWNED		NO. COLONY A.F.B.		NO. COLONY E.F.B.		NO. COLONY TREATED		NO. COLONY DESTROYED	
	1981	1982	1981	1982	1981	1982	1981	1982	1981	1982	1981	1982
BARNSTABLE	-	-	-	-	-	-	-	-	-	-	-	-
BERKSHIRE	-	383	-	457	-	6	-	8	-	3	-	2
BRISTOL	202	779	202	1100	1	0	8	109	0	0	0	0
ESSEX	-	526	-	1042	-	8	-	29	-	1	-	6
FRANKLIN	-	190	-	192	-	16	-	1	-	6	-	11
HAMPDEN	291	524	291	695	7	9	0	0	0	2	0	0
HAMPSHIRE	239	30	239	30	11	0	2	0	0	0	0	0
MIDDLESEX	235	2768	344	2771	24	53	0	58	0	5	0	8
NORFOLK	264	270	287	367	7	14	10	11	0	7	0	7
PLYMOUTH	173	550	296	696	33	34	3	41	0	0	0	0
SUFFOLK	50	72	53	106	0	0	0	0	0	0	0	0
WORCESTER	707	1943	713	2075	32	81	2	27	0	9	0	28
TOTALS	2161	8035	2425	9531	115	221	25	284	0	33	0	62

A.F.B. 1981 - 5.3% | A.F.B. 1982 - 2.7% | E.F.B. 1981 - 1.1% | E.F.B. 1982 - 3.4%

ESTIMATE NO. COLONIES IN MASSACHUSETTS 15,000

December 31, 1982
P.C. Kuzmiski, Chief
Bureau Of Plant Pest Control

STATE RECLAMATION BOARD
John J. McColgan, Chairman
Mark S. Buffone, Entomologist

Invariably, the ubiquitous mosquito familiar to many Bay-Staters returned once again for its scheduled annual appearance. The annoyance and disease potential associated with mosquitoes is a concern and a prime motivating factor for mosquito control programs in Massachusetts. Also, the trend of people moving outward into rural and suburban and wooded areas has resulted in many requests by municipalities to pursue mosquito control protection.

MOSQUITO MANAGEMENT FUNDING

Nine regional mosquito control agencies under the aegis of the State Reclamation Board implemented all currently available control tactics to battle this pest. Nationwide these agencies spend at least $60 million dollars a year to suppress the mosquito. In Massachusetts, the combined total efforts of regional mosquito control agencies cost approximately 2.5 million dollars. Also, a budget of $46,900 dollars covered the expenses of the staff of the State Reclamation Board for administering and overseeing the work of the state-wide mosquito operations this year.

INTEGRATED MOSQUITO MANAGEMENT PROGRAMS

The mosquito control projects utilize a variety of methods to reduce mosquito populations. The methods practiced by mosquito control projects involve the following actions.

1. Surveys are conducted to search for immature mosquitoes or adults to determine relative abundance and species. This activity locates breeding areas of immature mosquitoes and resting spots of the biting adult. This step is essential in determining the most effective time to implement control methods.

2. Source reduction work (a permanent non-chemical approach) eliminates the water that the mosquito is dependent on whenever feasible. This method may consist of cleaning road-side ditches, culverts, streams, and removal of containers which hold water.

3. Ideally, the primary method is larviciding. The immature mosquito is abated while localized and confined in breeding areas before they emerge as blood-seeking adults.

4. Adulticiding is a method that focuses on controlling the flying adult migrating into residential areas. A very non-residual contact space aerosal is essential in reducing immediately nuisance mosquitoes and provides protection during potential disease outbreaks.

Many factors must be considered before determining which of the above mentioned steps is best or acceptable for any given situation. For this reason, the experience and expertise of mosquito control projects plays a vital role in providing safe, economical, and effective mosquito control to the public.

WEATHER AND MOSQUITO PRODUCTION

In July 1981, weather conditions were favorable to management of mosquito populations. The absence of precipitation prevented the usual legion development and emergence of many of our common summer species of mosquitoes. Suddenly, in true New England fashion, a dramatic change in weather conditions took place during the spring and early summer of fiscal year 1982. Early spring rains and a

surprise blizzard on April 6, 1982 influenced pesky mosquitoes to emerge prematurely. In June, abnormal amounts of cold and continuous precipitation inundated many areas of the state. Of course, this event contributed to the overall mosquito breeding situation, although not as severly as expected.

REVIEW AND APPROVAL OF MOSQUITO CONTROL PROGRAMS

Once again, the State Reclamation Board sent questionnaires requesting specific mosquito control information to communities not currently members of a regional mosquito control project. The Board has attempted to accumulate specific information pertaining to local mosquito control programs. This is essential to safeguard against poor mosquito practices and to offer technical assistance to ensure effective and environmentally acceptable mosquito control programs. The response of the review and approval questionnaires of local mosquito control programs has been limited. During the 1982 mosquito season (latter part of fiscal year 1982) the Board received sixty-three (63) responses from various municipalities. Fifty-two (52) reported that no plans were anticipated for the ensuing mosquito year. Many municipalities cited the elimination of funds (Proposition 2½) and the prioritization of the gypsy moth problems as the reason for no mosquito control. Twelve (12) local mosquito control programs were approved and one (1) was disapproved by the Board.

MOSQUITO CONTROL LEGISLATION

During the fiscal year 1982 a number of municipalities bearing the burdens of fiscal constraints opted to withdraw their financial support and participation in two mosquito control projects. A new law (Chapter 119 of the Acts of 1982) became effective authorizing municipalities of the Berkshire County Mosquito Control Project to withdraw via Town or City Council majority vote. As a result, nineteen municipalities voted to discontinue participation in the program. Also, the Town of Acton voted out of the Central Massachusetts Mosquito Control Project in order to undertake the tasks of mosquito control through a local effort. Nonetheless, their mosquito control program was reviewed and approved by the Board. Another law (Chapter 302 Acts of 1981) became effective July 1, 1981, allowing municipalities within a regional mosquito control project to raise additional funds above the state assessment for purposes of mosquito control work. However, this shall be under the supervision and control of the mosquito project of which the municipality is a member.

BITING FLY PROJECT

This year the Biting Fly Specialist position mutually supported by the State Reclamation Board and the University of Massachusetts has been terminated. This action represents a serious setback relative to the many mosquito problems that need attention in Massachusetts.

PHOTOS: (adjacent to pages 34 and 35)

Front Page: (clockwise from top left)
Growers at Copley Square Farmers Market include John Arena and family of Concord (left), and Gilbert Griggs of Billerica (right); Channel 5 consumer reporter Paula Lyons visits Russo's Greenhouses in Randolph; recipients of direct marketing grants made possible by U.S. Department of Agriculture funding; U.S. Agriculture Secretary John R. Block presents one of awards to representatives of Massachusetts Federation of Farmers and Gardeners Markets and Dorchester Gardenlands Preserve and Development Corporation; dairy and vegetable farmer Stephen Verrill of Concord addresses group at his farm for awarding of direct marketing grants and citations for participation in state agriculture preservation restriction program.

Centerfold Page: (clockwise from top left)
Pictured are some of the farms protected under the Massachusetts Agricultural Preservation Restriction Program: Michael Smolak, North Andover; Florence Streeter, Cummington; Reynolds' Farm, James R. White, Rochester; Louis DeLucia, Methuen; Crescent Farm, Walter and Blanche Davidowicz, Haverhill; Joslin Hill Farm, Everett Harris, Leominster; Borgesi Brothers Farm, Methuen; Charles Jacque, Amherst; Hillcroft Farm, C. Edward Stillman, Lunenberg; Joslin Hill Farm, Everett Harris, Leominster; Charles Jacque, Amherst; Retail stand with produce from farm of Mr. & Mrs. William S. Pettengill in Newburyport; center photos are: Borgesi Brothers Farm, Methuen; Retail store adjacent to Griff Farm, Clark B. Sundin, Jr., Holden; Joslin Hill Farm, Everett Harris, Leominster.

Back Page: (clockwise from top left)
Harnessing up at Tricounty Fair, Northampton; Standardbred waiting to race at Ralston Fair, Plainville; Standardbred race fans at Marshfield Fair; Race in progress at Sharlu Farms, Leverett; New owners washing down their first win at Spencer Fair; Mare with foal at Sharlu Farms, Leverett.

The Annual Report of the Massachusetts Department of Food and Agriculture was edited by Janet Christensen of the Department and Mary Ellen Powers, Framingham State College student intern.